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THE
SOUTHERN PLANTER,

A MONTHLY PERIODICAL,

DEVOTED TO

Agriculture, Horticulture,

AND THE

HOUSEHOLD ARTS.



AUGUST & WILLIAMS, PROPRIETORS.

J. E. WILLIAMS, EDITOR.

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THE SOUTHERN PLANTER



Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.
[XENOPHON.]

Tillage and Pasturage are the two breasts of
the State.—SULLY.

J. E. WILLIAMS, EDITOR.

AUGUST & WILLIAMS, PROP'RS.

VOL. XX.

RICHMOND, VA., JANUARY, 1860.

No. 1.

Slavery and Free Labor Described and Compared.

BY EDMUND RUFFIN.

(Concluded.)

SECTION VIII.—How the substitution of free labor for slave labor would finally operate on agricultural interests—High price of land, of itself, not a benefit to agriculture, and may be the reverse—Still greater evil in fluctuating prices.

But enough of reference to the incidental and minor question. I will now proceed to the consideration of the main proposition of the opposers of negro or personal slavery—which is (as enunciated above at home, and by thousands of anti-slavery authorities abroad), that the removal of negro slavery and slave labor will bring in a sufficient supply of free laborers—and that the change will operate speedily, greatly and profitably for the land owners, in raising the prices of lands. I deny the general proposition, and also each of its minor parts; and, so far as the present land-owners' interest are concerned, will maintain that the pecuniary evils of the change would scarcely fall short of the evil political and social results which have been previously and elsewhere asserted.

The same general positions were assumed by the English anti-slavery party, to advocate

and prove the expediency of the general emancipation of slaves in the British colonies. There, however, it was argued that the emancipated negroes would be more industrious when freed, and therefore their labor would be cheaper than the previous slave labor. The same reasoning was then used and believed in by every emancipationist in these United States—of whom there then were many in the southern States. Since the utter failure of obtaining labor from the emancipated slaves in the West Indies can no longer be denied, the opposers of slave labor can no longer promise free negro labor as a substitute. But, in this country, the old argument is still maintained, with the mere change of terms, of free northern and European labor being now promised as the substitute for the negro slave labor lost—and an improvement is claimed in the change, which, while retaining to the owners the high prices of their slaves, by selling them, will serve also to more than double the present price of their lands.

In reply to these assertions—first, let us inquire in what manner, and by what new inducements, the removal and scarcity of negro slave labor will operate to bring in free labor. That the removal of slaves, and a consequent greatly increased demand and price for hiring labor, will bring from

abroad some amount of the latter, is freely admitted. Also, that, in a very long course of years, the low prices of land, reduced to one-fourth or less of their present rates, may invite so many foreign and new purchasers as gradually to fill the country with new and small proprietors, who, with the aid of other mere hireling laborers, may even till all the land now under culture, or more. Further: the longer continuation of the (so-called) free labor system at a much later time, by reducing the extent of farms and creating greater demand for lots and residences by the then more crowded population, may raise the price of land to higher than the present or slave labor rates for land. All this may be admitted without strengthening the anti-slave labor argument in the least. For even if free labor shall be so invited, and shall, in a long course of time, become never so plenty and cheap—and if land shall finally be appreciated never so highly—the early, and also a long continued operation of the change will be to make labor much scarcer and more costly at first, and for a long time, and land must sink very low in price, and be reduced as much in extent of culture, before an important reaction can be expected, and before higher than the present prices of land will be caused by a new demand of immigrant or other buyers. If such final results are, indeed, to be deemed benefits in any aspect, it would be at least fifty years, and more likely more than a century, before they could begin to be realized, and very long after the present owners were dead, after having been utterly ruined by the removal of slave labor, or after they or their children had fled from Virginia to avoid the manifestly approaching ruin of all property-holders who remained.

If the mere removal and scarcity of slave labor would serve to invite enough of free and hireling labor from abroad, why is Maryland now so much wanting in labor of every kind? Why are our counties, which border on Pennsylvania and Ohio, (where slaves cannot be kept in safety, because of the danger of their loss by Abolition action,) so deficient in labor? There is in all Maryland, and these parts of Virginia, great demand for hireling labor, yet the supplies have not, by half, filled the void made by the removal or absence of slave labor. And the sufficient reason is, that the free labor that is offered, and which would come in any amount, if at high enough wages, is now dearer and less suitable than slave labor, costly and hazard-

ous as is the employment of the latter. Higher wages are required by white hirelings, and greater indulgences, while they are more intractable, less contented, and often more lazy, and always less serviceable and reliable than negro slaves. These are truths known to every experienced Virginia farmer. And to the experience of all such, whether on our borders nearest to the free labor and slave-stealing States, or in our interior counties, I appeal to sustain my position of the greater cheapness and economy of using negro slave labor in preference to free labor. There is no position, in regard to agricultural or political economy, which could be better sustained by reasoning and by evidence. But I will not occupy more time and space on this point, than to refer the decision to every farmer's experience and knowledge of the comparative prices charged for hireling and slave labor, and their respective advantages and disadvantages.

As I aimed to show, in a previous article, the actual and increasing operation of the too high price, and consequent removal of our slaves by sale to the South, is to reduce the price of land; and to prevent investments of capital in agriculture, until the price of land shall be enough reduced to compensate in its lower cost to the new purchaser the increased cost of his investment in slaves at their enhanced prices. As there is nothing in these changes, or their causes, to increase the amount or the prices of agricultural products, we may suppose that they will maintain the previous average rates. Then the gross income of the farmer will remain the same—while either the removal of labor, or the decline of land in price, or the certain approach, or even expectation of either or both, will serve to render the farmer's position uncertain, his prospects of the future still more doubtful—to discourage the effort to improve his land and his business, by presenting, plainly in view, the probability of his necessarily selling his land and removing with his negroes to a region where their productive or laboring value is equal to their market price. Under such circumstances of beginning actual loss, or prospective and much greater future loss, in his general business—when his slave-labor (as capital) costs him much more than he can afford to pay for or to retain as an investment, and when free hireling labor, even if to be obtained, would be certainly much dearer—could it be

possible that, thus situated, Virginia farmers could pay still higher prices for the free labor of white immigrants? If the farmer who is the best supplied with slaves, even now, cannot obtain fair profits from their labor (as the profits of invested capital), because of their high appreciation for sale, can others, having no slaves, afford to employ free labor at still higher rates?

But suppose, notwithstanding all these reasons and all losses, our farmers, deprived of slave labor, whether gradually or suddenly, would, by their necessity, be compelled to hire the free labor of immigrants, at any price required. At first, and during the greatest scarcity and demand, the price would be exorbitant. And should the high price serve to increase the supply of labor so as to bring it, within some eight or ten years, to fair and uniform rates for free labor, these rates, for the reasons stated, would still be higher than those of slave labor now. During all these changes, the farmers would have to bear either greater or less of annual loss, if counted on their original capital stock. But, in truth, under such circumstances, (as the price of wages would not fall below a fair rate so long as labor was truly free,) their other capital, land, must fall, until, whether to the original possessor or to a new buyer, the value of the whole capital was so reduced, that the reduced profits still offered a fair return for cultivation. This might take place, possibly, after many years of continued depression and loss to the occupants, and of the ruin of one or more of them in succession, before the prices of land were reduced to their lowest rates. Then, a new purchaser, who bought a farm for one-fourth (or it might be one-tenth) of its former price, might make a profit on his cheap land investment, even with having to pay the high price of free labor for its cultivation.

Next, let us inquire what would be the inducements that would operate to incite new purchasers of land in Virginia, and especially from abroad, whose increased demand for land shall serve (as promised) to greatly raise the price of lands. It is admitted that new purchasers may be so brought into the land market by prices being reduced sufficiently low, and by that inducement only. Passing by the universal ruin to be caused to the present and even later proprietors and successive generations by such a decline, so great and long continued, the

question occurs, how low a rate of price will serve to induce new buyers to occupy our reduced and partially abandoned and desolate fields? Let it be remembered that while the prices of land were sinking, and the owners, also, were being reduced to less labor, income and means to live, the lands would also, and necessarily, get into bad condition, and partly out of cultivation; the buildings would go to decay or utter ruin, and the whole face of the country would be generally becoming waste, desolate, and much of it returning to the original wilderness state, except that its prior fertility had been exhausted before its bad culture had been abandoned. Under the necessary conditions, the land now valued at \$20 the acre, would, probably, not be fit to yield a fair farming profit to a purchaser at \$4. And if to be bought at \$4, or even at half that price, there will still be no inducements for purchasers and new cultivators to come from abroad, so long as rich new lands in the West can be bought of the United States government at \$1 25 the acre; or be settled upon and occupied, and a preemption right thereby acquired for the occupant to buy at that low price, whenever the government shall subsequently order the sale of the territory.

Now, under these, or any possible conditions and results of the removal of all our slave labor, and the change to the free labor system, such as above described, would be the manner in which only could be finally reached the alleged benefits, promised by the anti-slavery school, of substituted immigrant free labor, and immigrant land buyers and farmers. The opposers of negro slavery and slave labor are welcome to my broad admissions, and to make the most of them for their cause and argument.

But my admissions of consequences, and the supposed progress of events, so far, have merely reached the supposed filling of the country with enough free labour, at the ordinary higher wages of free labour—and found enough purchasers for the land at greatly reduced prices. I am willing to extend the views to such far remote time as will serve to crowd the population, and thereby raise the prices of lands to any rates required for the opposing argument; and, in short, to admit that Virginia, in a very long course of time, may be brought to as near the present condition of Massachusetts as can be, in the entire absence of

all the government protection and bounties which have operated to build up for Massachusetts full one-half of the navigation trade, manufactures—the population, the extent and the demands of the towns, and the consequent high price of lands, and the general profits and wealth of the people. But putting aside these great advantages bestowed by the federal government, and which Massachusetts has fully enjoyed and profited by, and which Virginia has largely helped to pay for, but never can receive—let it be admitted that, under the then free labour system, Virginia may, in two or three centuries, become more populous, and the lands be raised to much higher prices than now—still there would not necessarily be a more prosperous, happy, or worthy community. Increased population and increased prices of lands, both are important benefits when resulting from the true and growing prosperity of a country. But either may be the accompaniment, if not even the result, of the privations or misery of the people. For a long series of years in recent times (preceding and up to the Irish famine, which operated to change circumstances,) Ireland increased more rapidly in population than any country of Europe—was more densely populated than any except Holland, Belgium, and some others of the most fertile and highly cultivated small Territories—the land was exceeded by no country in fertility, and its price, to the occupier and cultivator, was enormously high. The poor Irish peasant had to pay to his landlord, or more often to the “middle man,” more per acre for the annual rent of his potato patch and its wretched hovel, and to live on potatoes only, than would have bought the full property, in fee-simple right, of as much and as good land in the United States. Yet, with all the greatly lauded and coveted benefits of dense and rapidly increasing population and high-priced lands, Ireland was the most wretched country, with the most destitute and miserable people of all Europe, and, indeed, of the civilized world. The extreme case of Ireland never can be paralleled in America. But even that condition of dense population, high price of land, and low price of free labour, (improperly then so-called,) as is coveted by some persons as an improvement and blessing for Virginia, could only be reached through a long course of early loss to the property-owners, and of late

privation and suffering to the poor and more destitute inhabitants.

The high price of land, of itself, and considered in regard to the then present and future time only, is not a benefit to agricultural interests, nor the community—but the reverse. It operates to increase the cost of investment in agriculture without increasing the products, and, therefore, serves to lower the profits of, and so to discourage agriculture. The low price of lands, by the reverse operations, offers cheaper investments, consequent higher profits, and, therefore, greater encouragement to agricultural pursuits.

When lands rise in price, slowly and gradually, and the rise is based upon the improvement and increased capacity for production of the lands, such rise is the best indication of the sound prosperity of agriculture, and is also a stimulus to increased industry. But the attainment of the highest rate of price, (even in this beneficial manner,) however truly indicating a previous and past progress of prosperity of agriculture, is not an element of, or as a means for, future profit and prosperity, as would be low price of lands, supposing all other facilities for their use to be equal.

But of all evils of either high or low prices of land, none are so injurious to the owners, and to the agricultural and general interests of a country, as fluctuating prices—and are changes caused, not by any changes of the intrinsic worth of the land itself, or at all dependent on the will and action of the owners, but by artificial and extraneous circumstances. Such causes have operated most banefully in Virginia, especially in the great expansion of irredeemable bank issues in and after 1814—(which caused apparent and great increase of the prices of land, which was, in fact, but the depreciation of paper money, and the stimulus of speculation thereby produced)—the succeeding collapse of bank and paper credit, and consequent extensive losses and bankruptcy of proprietors, and therefore great and undue depression of prices generally—and the great emigration from Virginia, and especially of slaves, caused by losses to proprietors, and invited by the higher profits of agriculture offered to them on the cheap and rich cotton lands of the new South-western States. After struggling through those opposite evils and fluctuations of too high and too low prices of

lands, a time began of general moderate and continuous profits from cultivation of very general improvement of farms, and a consequent gradual rise of the value and of the market prices of lands, as well as of slaves, and both founded on the real products and profits of agricultural property and the then existing investments. This, the best and most prosperous time of agricultural progress and profit in Virginia, began (varying in different localities) between 1830 and 1840, and continued until recently, when a check and then a decline of the price of land and of agricultural prosperity began, and must become more extensive and rapid, with the continuance of of the producing cause—the high price of slaves—already increased to a higher rate than the products of their labour in Virginia will remunerate, and, accordingly, operating to forbid new investments in agriculture, and so to reduce the prices of lands and to discourage their improvement and best cultivation.

SECTION IX.—The actual working and practical results of the free and slave-labour systems compared, as shown by evidence furnished by the United States Census and other public statistics.

Throughout the foregoing argument, the positions assumed have been mostly maintained by reasoning *a priori*, and by deductions made by reasoning from established premises. In this, and all like cases, however satisfactory may be the general facts used as premises, or adduced as proofs, such facts and evidences, from the nature of the subject, are liable to be doubted, or objected to as insufficient, by hostile and prejudiced disputants. This is a necessary defect of all discussions by argument of disputable questions and doctrines, and especially where the spirit of party or fanaticism has strong influence. Fortunately for my argument, it has not to rest on reasoning, or deductions, or general evidence, the authority or force of which may be called in question by captious and prejudiced opponents. There have been presented in the last United States Census (for 1850) many remarkable results of the practical and long-continued operations of the free labour and negro slavery systems of this country. This array of practical proofs, and the comparisons and contrasts they afford, will serve as an appropriate and impressive conclu-

sion to the preceding general argument. For the substance of most of the following evidences of this kind, and for the great labour of research and investigation which was required to extract them from the census and other reports, I shall be indebted to a preceding writer, the Rev. Thornton Stringfellow, who has set forth and commented upon these evidences at length in his "Scriptural and Statistical Views of Slavery," (4th edition, 1856,) an excellent and admirable, though plain and unpretending little book. In all the following evidences cited from the census, &c., I shall make use of the valuable labours of my predecessor, and rely entirely on his high authority for the correctness of the citations. My own part of this statistical statement will be but little more than condensing and arranging Mr. Stringfellow's more diffused statements, and by using numerical figures, (instead of numbers expressed in words,) and a tabular form, where suitable, to place the contrasts and conclusions in more striking points of view, as well as in much smaller space.

Mr. Stringfellow has very properly and judiciously taken for comparison the six New England States, and the five most Southern old slave States, Maryland, Virginia, North Carolina, South Carolina, and Georgia. There are remarkable points of similarity between these two great sections of the United States, which make them so much the better subjects for comparison and contrast, in regard to their great difference, in their respective kinds of labour. Both these sections are bordered by the Atlantic—are composed of the older States, and were settled nearly within the same limits of time. They have long had in operation their different kinds of labour and systems of economy. In addition, their respective numbers of free inhabitants, in 1850, were so nearly equal, that they may be fairly considered as equal, for all purposes of argument, as will be done here.

Until recent investigation and discussion had elicited more truth, it had been claimed by the people of the North and by all the opposers of slavery, and even was generally admitted by the people of the Southern States, that the free-labour States of New England were greatly superior to the old Southern States in obtaining the fruits of industry and capital—were richer, and better off in every economical view. South-

ern capital and industry were almost exclusively devoted to agriculture—northern capital was much more vested in commerce and manufactures, which are deemed much more profitable than agricultural investments. In addition, these pursuits of New England industry were richly endowed with governmental favour and bounty, at the expense, and to the greater impoverishment, mainly, of the southern States.

It has also been especially and loudly claimed, for and by the people of the New England States in the support and the good fruits of religion, and in their religious and moral position and tendency—and that such difference was the necessary result of the blighting and demoralizing effects of negro slavery in the South, and of its absence in the North. Moreover, the early settlers of New England were almost universally devoted to their extremely strict doctrine of religion, and as strict code of morals. On the contrary, these southern States,

(with the small exception of the first Catholic settlers of Maryland, and the Huguenots of South Carolina, were settled by persons not under any influence of religion, and certainly not of better than average morality, and habits of life. Upon such foundations of very different material, and after a long course of trial, the results of the different systems, in these respects, may be judged of by the facts and numbers furnished by the extracts from the census.

Not only the alleged and claimed better moral and business habits of New England, but its bracing climate, deemed so much more healthy than the low country of the Southern States, would promise greater increase of population. The authentic reports of births and deaths will present a very different account—which, with other facts from the census, bearing on other parts of this general question, will now be submitted.

COMPARISON IN REGARD TO FREE POPULATION OF THE SIX NEW ENGLAND STATES WITH THE FIVE OLD AND MORE SOUTHERN STATES—BY CENSUS RETURNS OF 1850.

	New Eng-land States.	Five old South'n States.	Excess for N. or S.
Total free population in 1850,.....	2,728,016	2,732,214	S. 2,198
Annual births,.....	61,148	77,683	S. 16,535
Annual deaths,.....	42,368	32,216	N. 10,152
Number of churches erected and in use,.....	4,607	8,081	S. 3,374
Valuation of all the churches,.....	\$19,362,634	\$11,149,118	N. \$8,313,516
Church accommodation for hearers,.....	1,893,450	2,896,472	S. 1,003,022
Excess of persons over seats in churches,.....	834,566	.....	.....
Excess of seats over number of persons,.....	.....	164,528	.....
Number of families,.....	518,532	506,968	N. 11,564
Number of dwellings,.....	447,789	496,369	S. 48,580
Number of families without separate dwellings,.....	70,743	10,599	N. 60,144
Number of paupers (receiving regular and continued public support),.....	33,431	14,221	N. 19,220
Number of native paupers, (excluding foreigners,).....	18,966	11,728	N. 7,238
Ratio of native paupers to total population,...	1 to 143	1 to 234	.....
Ratio of all paupers to total population, (including slaves,).....	1 to 81	1 to 171	.....
Insane persons.....	3,821	2,326	N. 1,495
Of negroes free in New England and slaves in the five Southern States:—	.....	.....	.....
Insane and idiots,.....	1 in 980	1 in 3,080	N.
Blind,.....	1 in 370	1 in 2,645	N.
Deaf mutes,.....	1 in 3,005	1 in 6,552	N.
Total value of property.....	\$1,003,466,181	1,420,989,573	S. 417½ mil.
Average value for each white person,.....	\$367	\$520	S. \$153

Lest the condition of the States referred to should be supposed peculiar, the average of property to each white person will be stated for sundry other particular States as follows:—

Non Slaveholding States.		Slaveholding States.	
New York has for each,.....	\$231	South Carolina,.....	\$1,001
Pennsylvania,.....	214	Louisiana,.....	806
Ohio,.....	219	Mississippi,.....	702
Illinois,.....	134	Georgia,.....	638
New England, (as above,).....	367	Alabama,.....	511
Next richest Non-slaveholding States in their order severally as follows : \$280, \$231, \$228, \$219, \$214 ; and the remaining States range from \$166 down to \$134 for Illinois.		Maryland,.....	423
		Virginia,.....	403
		Kentucky,.....	377
		North Carolina,.....	367
		Tennessee,.....	248
		Missouri, (the poorest,).....	166

For all the fifteen Non-slaveholding States in 1850, (excluding California,) the value of property to each white person was, \$233

For the same in all the fifteen Slaveholding States,..... 439

And even if every slave is counted as if free, and then averaging the division of value of property among the total population, the superiority would still remain to the slaveholding States—the share for each inhabitant, including slaves, being \$291 ; and for all the non-slaveholding States, as above stated, \$233.

This last mode of estimation will serve completely (and it is stated for that purpose) to shut out an objection that would be ready to oppose the previous estimates ; that is, the counting the slaves as property and not as persons. But whatever force there might be in this objection in other respects or with other reasoners, Northern anti-slavery partisans have no claim whatever to urge the objection, for they have persistently and zealously maintained that slave-labour, and investments in slaves for use, were more unprofitable than the employment of free labour. It is, therefore, entirely proper and called for, that this, the great argument and position of opposers of slavery (Northern and Southern) shall be thus met, by showing the greater profits of slaves as property, compared to other investments for industrial operations.

A few more particular remarks will be offered—either as comments on some of the foregoing items, or on other points. For these also, I am indebted to Mr. Stringfellow's selections of statistics.

In the five old Southern States (under consideration) the births (of free population) exceed those of New England by 27 per cent. ; while the deaths of the latter exceed those of the former by 33 per cent. ; or added together, making a difference of 60 per cent. in favour of the increase of Southern population. In this estimate, the

slaves are not included ; but the census shows that among them also, the births are more numerous and deaths fewer, than among the free men of New England.

In the city of New York, in 1847, there were received at the principal alms houses, 28,692 persons—and out-door relief from public funds was given to 34,752 more—making in all, 73,264 ; or 1 in every 5 inhabitants of the city “dependent more or less, on public charity.”

In the city of New York alone, in 1848 and 1849, there were sent to the States Prison, the Penitentiary, and the City Prison, 1,235 criminals—which (says Mr. S.) “equals all in the 15 slave States together. In the State of New York, with a population of 3,097,304, there were 10,279 convictions for crime ; and in South Carolina, with a total population of 668,507 (considerably more than one-fifth,) there were only 46 convictions for crime.” If the free and the slaves of South Carolina had furnished criminals in proportion to New York, the numbers would have been 2,218 instead of 46 only.

“In 1845, according to her statistical report, Massachusetts had 7 of every 8 of her marriageable young women working in factories, under male overseers.”

“Pauperism in Massachusetts and New York, according to the State census, between 1836 and 1848, increased ten times faster than wealth or population.”

The foregoing numerical statements, both in the table and elsewhere, will speak for themselves to every reader who will examine and compare the details. But if more extended comment is needed by any, or deductions to be more fully and forcibly set

forth, I would refer the reader to the statistical portion of the excellent essay by Mr. Stringfellow, to which I again acknowledge my especial obligation for the substance of the foregoing statements, as well as for my share of the common obligation of the whole southern people, and also of the right-minded northern, for his plain and strong exposition and defense of truth.

I will add some other facts, of like kind, on other good authority. Preceding quotations have shown the great excess of crime, among the whites of the northern states compared to those of the southern. The following statistical facts will furnish additional evidence that the northern free negroes are far more debased, and addicted to crime than the whites—so little has been effected by their freedom, and equal civil or political privileges, and all the aid of northern philanthropy, for the moral improvement of the free negroes, or to prevent their continued degradation.

The Rev. Dr. Bascom, in his Review of the Methodist Controversy, p. 57, (quoted by Estes,) states the following proportions of the negro and white populations in several states, and of criminals of each:

Ratio of free negroes to total population:			
Massachusetts,	1 in 74,	which furnish of total	criminals, 1 in 6
Connecticut,	1 in 34,	"	1 in 3
New York,	1 in 35,	"	1 in 4
New Jersey,	1 in 13,	"	1 in 3
Pennsylvania,	1 in 34,	"	1 in 3

In all the northern states, "one-fourth of the whole expense of the prison system is incurred by crime committed by [the free negroes, making but] one-twentieth part of the population." "The same is true as to the pauper expenditures of all the northern states."—*Id.*

The next following statistics of pauperism and crime, I have extracted from the official tables of the census of 1850, as presented in the "Compendium," prepared by order of Congress, and which serve to compare, in these respects, the states of Massachusetts and Virginia. See pages 161, 162, 163, 164, 165, 167.

	In Massachu- setts.	In Virginia.
Free negro population,	9,064	54,333
White population,	985,450	894,800
Total free population,	994,514	949,133
"Whole number of pau-		

	In Massachu- setts.	In Virginia.
pers supported in whole or in part, within the year ending June, 1," 1850, [out of, as well as in poor houses,]	15,777	5,118
"Annual amount of support,"	\$392,715	\$151,722
"Paupers in Poor Houses, June 1, 1850," aggregate.	3,712	1,539
Of which were free negro paupers, June 1, 1850," aggregate,	89	186
[Or 1 pauper free negro to 101.84 for Mass., and 1 to 292 for Va.,		
"Whole number of [negro,] criminals convicted within the year," [including slaves?]	7,250	107
"In Prison, June 1, 1850,"	1,236	313
Of Free Negroes—"Convicts in Penitentiaries, 1850" and "Persons in Jails and Houses of Correction" [added together,]	139	95
[Or 1 convict in every 65 free negroes for Mass., and 1 in 572 for Va.]		

Abstract from "table 182. Rates of Improvement."

	Whites.	Free colored.	Ratio of white to col'd. as 1 to
"Virginia—Ratio, for 10 years, ending 1850, of convicts in penitentiaries to the average population [of the respective classes?] as 1 to	23,003	3,001	7.18
Mass. in the same period, [as 1 to]	7,587	727	9.58
Mass. for year ending Sept. 30th, 1852, according to the population of 1850.	6,527	488	13.37

As slaves are not referred to under that name in this table, and as criminal slaves in Virginia are not sentenced to confinement in the Penitentiary, for punishment, it is inferred that the "average population" was meant to include the only classes named,

"whites" and free "colored." If so, then the ratio of white convicts, for 10 years, in Massachusetts was more than three times, and of free colored largely more than four times as great, as respectively of these classes in Virginia. The later report of Massachusetts, for 1852, much increases the previous disproportion and excess, and especially of the free colored criminals." If, however, the slaves of Virginia were designed to be included in the "average population," then that understanding and correction would serve to lessen the above estimates of excess of criminals by about one-third—still leaving an enormous excess to Massachusetts over Virginia.

In table 179, page 166, there is stated the number of colored convicts (including slaves and free) for every 10,000 of such population, then in "State Prisons and Penitentiaries." In Massachusetts the number was 46.377, and in Virginia only 1.309, in 10,000 of the total colored population. It should be observed, however, that most of the minor criminal offences of slaves are punished by their masters, or by sentence of a magistrate, and do not appear in public reports and records. This omission, perhaps, may serve to cause even the larger portion of the apparent vast excess of colored criminals in Massachusetts. But on the other hand, the previous items of the "whole number of criminals, &c., and "in prison June 1," must have included all the imprisoned slaves, and thereby served improperly to increase, by so many, the stated number of colored convicts of Virginia, and so lessened the true comparative excess, and disproportion of crime of the free colored class in Massachusetts. But after making every due allowance from these or any other defects or omissions of the census reports, there will be enough of indisputable evidence to show very great excess of both pauperism and crime in the whites of Massachusetts, and all New England, over Virginia and the other older southern states—a still greater excess of pauperism and crime of the northern free-negro population over that of the slave-holding states—and still more of free negro criminals, every where, so far as known and believed, over slaves convicted for like offences.

There is one condition of moral debasement and depravity which is not punished by law, or noted among criminal offences, but which is extremely common in the

north, and so rare in the south, that cases of parricide and incest are not more unfrequent and remarkable occurrences. This is the marriage, or cohabitation, of white women with negro men. It is notorious that such connections are of common occurrence, and excite there no such surprise, deep disgust, or popular indignation, and prompt repression, as every such offence would in the slave-holding states. As a sample, I will quote the case of a single northern city only. Detroit, as reported by one of its own newspapers, (the "Free Press," in a recently published paragraph, which has been copied by many other papers. "The extent to which amalgamation is carried in this city, is really beyond the knowledge of nine-tenths of the inhabitants. There are hundreds of families, the parents of which are of opposite colors, and although the marriage of whites and blacks is illegal and void, yet they live together and bear children. It is a remarkable fact, that out of all this number, no instance exists where a white man lives with a black woman. They are all white women, and generally the blackest kind of men. . . . The same condition of affairs prevails on the other side of the river, to the intense disgust, we are happy to add, of all good and loyal Canadians."

The foregoing statistical facts show a remarkable superiority of the slaveholding section in view, over the New England States (and would over all the free States,) in almost every thing that is desirable to all, or of which the possession has been made the pride and boast, or ground of self-laudation, of the people of the North. This is especially noticeable in the statistics of religion and morals—and also in regard to population, wealth, pauperism and crime. The measure of true religion of any people cannot be learned from statistics—though it may be indirectly inferred from the amount of crime. But whether there is more religion in the South, or not, there is certainly far less immorality and crime—and far more of facilities and accommodation for public worship and religious instruction, and both for blacks and whites, than are provided in the North. "Ecclesiastical statistics," says Mr. Stringfellow, "will show an increased amount of prosperity in religion [in the Southern States] that is overwhelming."

Despite our sickly climate over a large portion near the coast, the births are more

numerous, and the deaths by far fewer, than in New England.

Instead of our labors and investments in slave-labor being less profitable than northern operations, it is manifest that the slave-holding States are much richer than the free States, and to make this result the more striking, even if counting every slave as if free, and supposing the whole property to be divided among all the population, (slaves included,) still on this general average, the individual share of every one, bond or free, would be considerably larger than in the free States. The greater number of houseless families, of paupers, of criminals and of insane—as well as of deaths—all show in their calamitous effects that there is much more suffering, of both body and mind, in the North than in the South, whether comparing total populations, or whites only—or our slaves to the free negroes of the North. And, generally, these statistics clearly show that all the general evils—physical, economical, moral, or mental—which have been falsely ascribed to the existence and injurious influence of slavery, are to be found existing in much greater number and force in the non-slaveholding, or free-labor communities of the North, which have especially denounced and exaggerated the demoralizing effects of slavery, and pharisaically claimed for themselves a superiority in every respect over slave-holding communities.

From the Country Gentleman.

John Johnston and his Farming.

A late visitor to Mr. JOHNSTON has given an account of his farm operations in the New York Tribune, which we transfer to our pages, with some corrections, believing that it will be read with great interest by those who have so long looked to our pages for the results of his experience and observation:

Mr. JOHN JOHNSTON, near Geneva, N. Y., at one time esteemed a fanatic by his neighbors, has come of late years to be generally known as "the father of tile-drainage in America." After thirty years of precept and twenty-two of example, he has the satisfaction of seeing his favorite theory fully accepted, and, to some extent, practically applied throughout the country. Not without labor, however, nor without much skepticism, ridicule, and controversy,

has this end been attained; and if, now that his head is whitened, and his course all but run, he finds himself respected and appealed to by persons in every State of the Union, he does not forget that it has been through much tribulation that he has worked out this exceeding great weight of glory. Mr. Johnston is a Scotchman, who came to this country thirty-nine years ago, and purchased the farm he now occupies, on the easterly shore of Seneca Lake, a short distance from Geneva. With the pertinacity of his nation, he stayed where he first settled, through ill-fortune and prosperity, wisely concluding that by always bettering his farm he would better himself, and make more money in the long run than he could by shifting uneasily from place to place in search of sudden wealth. He was poor enough at the commencement; but what did that matter to a frugal, industrious man, willing to live within his means, and work hard to increase them? And so, with unflagging zeal, he has gone on from that day to this.

HIS FARM.

His first purchase was 112 acres of land, well situated, but said to be the poorest in the county. He knew better than that, however, for although the previous tenant had all but starved upon it, and the neighbors told him such would be his own fate, he had seen poorer land forced to yield large crops in the old country, and so he concluded to try the chances for life or death. The soil was a heavy, gravelly clay, with a tenacious clay sub-soil, a perfectly tight reservoir for water, cold, hard-baked, and cropped down to about the last gasp. The magician commenced his work. He found in the barn-yard a great pile of manure, the accumulation of years, well rotted, black as ink, and "as mellow as an ash-heap." This he put on as much land as possible, at the rate of *twenty-five loads to the acre*, plowed it in deeply, sowed his grain, cleaned out the weeds as well as he could; and the land on which he was to starve gave him about *forty bushels* of wheat per acre. The result was, as usual, attributed to luck, and anything but the real cause. To turn over such deep furrows was sheer folly, and such heavy dressings of manure would not fail to destroy the seed. But it didn't; and let our farmers remember that it never will; and if they wish to

get rich, let them cut out this article, read it often, and follow the example of our fanatical Scotch friend.

This system of deep ploughing and heavy manuring wrought its results in due time. Paying off his debt, putting up buildings, and purchasing stock each year to fatten and sell, Mr. Johnston, after seventeen years of hard work, at last found himself ready to incur a new debt, and to commence laying tile-drains. Of the benefits to be derived from drainage he had long been aware; for he recollected that when he was only ten years of age, his grandfather—a thrifty farmer in Scotland—seeing the good effects of some stone drains laid down upon his place, had said, “Varily, I believe the whole airth should be drained.” This quaint saying, which needs but little qualification, made a lasting impression on the mind of the boy, that was to be tested by the man, to the permanent benefit of this country.

Without sufficient means himself, he applied for a loan to the Bank of Geneva, and the president, knowing his integrity and industry, granted his request. In 1835 tiles were not made in this country, so Mr. Johnston imported some as samples, and a quantity of the “horse-shoe” pattern were made in 1838, at Waterloo. There was no machine for producing them, so they were made by hand, and moulded over a stick. This slow and laborious process brought their cost to \$24 per thousand, but even at this enormous price, Mr. Johnston determined to use them. His ditches were opened and his tile laid—and then what sport for the neighbors! They poked fun at the deluded man; they came and counseled with him, all the while watching his bright eye and intelligent face for signs of lunacy; they went by wagging their heads, and saying, “Aha!” and one and all said he was a consummate ass to put crockery under ground, and bury his money so fruitlessly. Poor Mr. Johnston! he says he really felt ashamed of himself for trying the new plan, and when people, riding past the house, would shout at him, and make contemptuous signs, he was sore-hearted and almost ready to conceal his crime. BUT WHAT WAS THE RESULT? Why this: that land which was previously sodden with water, and utterly unfruitful, in one season was covered with luxuriant crops, and the jeering skeptics were utterly confounded; that in two crops all his outlay for tiles and labor was repaid,

and he could start afresh and drain more land; that the profit was so manifest as to induce him to extend his operations each succeeding year, and so go on until 1856, when his labor was finished, after having laid 210,000 tiles, or more than fifty miles in length! And the fame of this individual success going forth, one and another duplicated his experiment, and were rewarded according to their deserts.

It was not long after the manufacture of the first lot of tiles that a machine was contrived which would make quite as well, and faster; and by its aid they were afforded at quite as low a price as after an English machine was imported. The horse-shoe tile has been used by Mr. Johnston almost exclusively, for the reason that they were the only kind to be procured at first, and on his hard sub-soil, finding them to do as well as he could wish, he has not cared to make new experiments. He has drains that have been in function for more than twenty years without needing repair, and are apparently as efficient now as they were when first laid. In soft land, pipe or sole tiles would be preferable, or if horse-shoe were used, they should be placed on strips of rough board, to prevent their sinking into the trench bottom, or being thrown out of the regular fall by being undermined by the running water. He has not used the plough for opening his trenches, for the reason that all his work has been let out by contract, and the men have opened them by the spade; charging from twelve and a half to fifteen cents per rod for opening and making the bottom ready for the tile. The laying and filling was done by the owner.

HIS PRACTICE.

His ditches are dug only two and a half feet deep, and thirteen inches wide at the top, sloping inward to the bottom, where they are just wide enough to take the tile. One main drain, in which are placed two four-inch tiles, set eight inches apart, with an arch piece of tile, having a nine-inch span set on top of them, was dug three and a half and four feet deep, and this serves as a conduit for the water from a large system of laterals. Drains should never be left open in winter, for the dirt dislodged by frequent frosts so fills the bottom that it will cost five or six cents per rod to clear them; and, moreover, the banks often become so crumbled away that the ditch can-

not be straddled by a team of horses, and thus most of the filling must be done by hand. Mr. Johnston, in draining a field, commences at the foot of each ditch, and works up to the head. He opens his mains first, and then the lateral or small drains; but he lays the tiles in the laterals, and fills them completely before laying the pipe in the mains. The object of this is to prevent the accumulation of sediment in the mains, which would naturally be washed from the laterals on their first being laid. By commencing at the foot of each ditch and working upward, he can always get and preserve the regular fall, which may be dictated by the features of the field, more easily than by working toward the outlet. A little practice teaches the ditchers how to preserve the grade almost as well as if gauges were employed; but before laying the tiles, the instrument is applied to test the bottom thoroughly.* The necessity of this precaution to any one who reflects that if a tile or two in the course of a ditch be set much too high or too low at either end, the water quickly forms a basin beneath and around, sediment is washed into the adjoining pipe, and ultimately even the whole bore is filled and the drain stopped. When this happens it will be indicated after a time by the water appearing at the surface of the ground above the spot—drawn upward by capillary attraction. In such a case the ditch must be re-opened and the tile re-laid.

ILLUSTRATIONS.

Mr. Johnston says, tile-draining pays for itself in two seasons, sometimes in one. Thus, in 1847 he bought a piece of ten acres, to get an outlet for his drains. It was a perfect quagmire, covered with coarse aquatic grasses, and so unfruitful that it would not give back the seed sown upon it. In 1848, a crop of corn was taken from it, which was measured and found to be *eighty bushels* per acre, and as, because of the Irish famine, corn was worth \$1 per bushel that year, this crop paid not only all the expenses of the drainage, but the first cost of the land as well.

Another piece of twenty acres, adjoining the farm of the late John Delafield, was wet and would never bring more than ten

bushels of corn per acre. This was drained at a great cost, nearly \$30 per acre. The first crop after this was 83 bushels and some odd pounds per acre. It was weighed and measured by Mr. Delafield, and the County Society awarded a premium to Mr. Johnston. Eight acres and some rods of this land, at one side, averaged 94 bushels, or the trifling increase of 84 bushels per acre over what it would bear before those insignificant clay tiles were buried in the ground. But this increase of crop is not the only profit; for Mr. Johnston says that on drained land one-half the usual quantity of manure suffices to give maximum crops. It is not difficult to find a reason for this. When the soil is sodden with water, air cannot enter to any extent, and hence oxygen cannot eat off the surfaces of soil-particles and prepared food for plants; thus the plant must in great measure depend on the manure for sustenance, and of course the more this is the case, the more manure must be applied to get good crops. This is one reason, but there are others which we might adduce if one good one were not sufficient.

Mr. Johnston says he never made money until he drained, and so convinced is he of the benefits accruing from the practice, that he would not hesitate—as he did not when the result was more uncertain than at present—to borrow money to drain. Drains well-laid, endure; but unless a farmer intends doing the job well he had best leave it alone and grow poor, and move out West, and all that sort of thing. Occupiers of apparently dry land are not safe in concluding that they need not go to the expense of draining, for if they will but dig a three-foot ditch in even the dryest soil, water will be found at the end of eight hours, and if it does come, then draining will pay for itself speedily. For instance: Mr. Johnston had a lot of thirteen acres on the shore of the lake, where the bank at the foot of the lot was perpendicular to the depth of thirty or forty feet. He supposed from this fact, and because the surface seemed very dry, that he had no need to drain it. But somehow he lost his crops continually, and as he had put them in as well as he knew how, he naturally concluded that he must lay some tile. So he engaged an Irishman to open a ditch, with a proviso that if water should come into it in eight hours, he would drain the entire piece. The top soil was so hard and dry as to need an application of

* I never used a leveling instrument. I always had water, which is the best instrument.—J. J.

the pick; but at the depth of a foot it was found to be so wet and soft that a spade could easily be sunk to the entire depth of ten inches with little force. The ditches were made, and in less than the specified time a brave lot of water flowed in. The piece was thoroughly drained, and the result was an immense crop of corn. The field has regularly borne 60 or 70 bushels since. Corn was planted for a first crop in this and the preceding instances, because a paying crop is obtained in one year, whereas if wheat were sown, it would be necessary to wait two seasons. He always drains when the field is in grass, if possible, for the ditches can be made more easily; and spring is chosen that the labor may not be interfered with by frosts.

To show how necessary it is to avoid planting trees over drains, we quote a case in point. In a lot adjoining his house are four large elms, which are marked to be felled, and for the reason that the lot was formerly so wet that a pond of water stood upon it in winter, and throughout the season the children skated and slid upon it. It was drained, and all went well for a time; but after seven years Mr. Johnston found his drains did not discharge properly, and that in certain places the water came to the surface, so as to destroy or greatly lessen the crop above them. He could not account for the circumstance until he dug down to the drain at each of these spots, when, to his surprise, he found the tile [two four-inch tile, with a semi-circle of nine inch set on top of them,] completely clogged with fibrous roots of the elm.

Mr. Johnston says he never saw one hundred acres in any one farm, but a portion of it would pay for draining. Mr. Johnston is no rich man, who has carried a favourite hobby without regard to cost or profit. He is a hard-working Scotch farmer, who commenced a poor man, borrowed money to drain his land, has gradually extended his operations, and is now reaping the benefits, in having crops of forty bushels of wheat to the acre. He is a gray-haired Nestor, who, after accumulating the experience of a long life, is now, at sixty-eight years of age, written to by strangers in every State of the Union for information, not only in drainage matters, but all cognate branches of farming. He sits in his homestead a veritable Humboldt in his way, dispensing information cheerfully through the agricul-

tural papers and to private correspondents, of whom he has recorded 164 who applied to him last year. His opinions are, therefore, worth more than a host of theoretical men, who write without practice. He says that the retrogression of our agriculture in the older States, is to be accounted for in our lack of drainage, poor feeding of stock, which results in giving a small quantity of poor manure, and in not keeping enough to make manure. He applies twenty-five loads of manure to the acre at the beginning of a rotation, and this lasts throughout the course. He learned from his grandfather that no farmer could afford to keep any animal that did not improve on his hands, and that as soon as it was in good marketable condition it should be sold and replaced by another. This theory he has always carried out, and, as a natural consequence, has always got higher prices for his beef stock, and a ready market in the dullest of times.

The India Cotton Question.

The chimera of cotton supply from India continues to dance before the imagination of the Manchester men, and the idea seems to be adroitly kept alive by those who have an interest in fostering it, in face of the realities of the past. It is many years since the capacity of India to grow cotton for the European market fastened itself so firmly upon those who desired to be emancipated from dependence upon the United States, and above all upon "slave labor," for the most important material of human clothing. Great exertions have been accordingly made to stimulate a growth in India, but the results have been that machine-made goods have been introduced into India faster than the raw material could be drawn thence for the manufacture; in other words, instead of being a cotton producer, India has become a cotton consumer, as far as regards the European market. At times circumstances have for a year raised the quantity of cotton which India has been able to send to Europe, but the extra quantity has only been drawn from the accumulation of old stocks, to be succeeded almost invariably by a diminished quantity. Since 1820 there have been four periods in which the export of cotton from India to England have increased over the average of previous years. The first was in 1836, when speculation ran high and carried up prices. A reaction followed until

the China war in 1841, when Indian cotton was turned from that destination to England. Reaction again followed in 1851, the failure of the United States having sent prices up very high, made an opening for

that of India, and in 1857 the speculative action again brought out large quantities. These changes are expressed in the following table:

	Imported into Great Britain		—Price—	
	From U. States. lbs.	From India. lbs.	U. S. d.	Surat. d.
1834.	269,336,320	32,666,560	6	4 $\frac{5}{8}$
1836.	281,181,180	79,449,730	10 $\frac{1}{4}$	7 $\frac{1}{2}$ —speculation.
1836.	417,281,601	33,232,612	7	5
1841.	336,647,793	100,104,510	6 $\frac{1}{4}$	4 $\frac{5}{8}$ —war.
1846.	352,855,160	33,711,420	4 $\frac{7}{8}$	3 —Irish famine.
1850.	493,153,112	122,626,976	7 $\frac{1}{4}$	5 $\frac{1}{2}$ —short crop.
1852.	765,630,544	81,922,432	5 $\frac{3}{8}$	3 $\frac{1}{2}$
1857.	654,758,008	250,338,144	7 $\frac{1}{4}$	5 $\frac{3}{8}$ —speculation.
1858.	833,257,776	132,722,576		

This table shows how invariably after a rise in prices in Europe, caused by the shortness of the United States crop, in proportion to the demand; reaction followed in the India supply. In the year 1836 speculative high prices doubled the import from India. In 1852, a year of reaction, the receipts from India were hardly more than in the 16 years previous, while the United States supply was three times greater in 1852, at little more than half the price obtained in 1836. In the three years ending with 1857 there had been annually increased receipts of cotton from India; from 119 millions in 1854 it rose to 145 million, 180 million,

250 million pounds. In all the period from 1836 to 1858, the greatest exertions have been made to draw cotton from India, with what results the table shows. If we now take the quantities of cotton sent to India in the shape of goods, we may estimate the value of India as a source of supply. Inasmuch as that China is a large customer for India cotton, it makes but little odds whether the cotton is sent raw from India or in the shape of goods from Great Britain. The official tables in 1836 did not separate the quantities sent to China from those forwarded to India. The quantities were as follows:

EXPORTS COTTON GOODS FROM GREAT BRITAIN.

	To India.	To China.	Total yards.	Equal to lbs. cotton.
1836.			74,927,870	32,000,000
1846.	196,140,700	73,671,889	269,812,589	108,000,000
1856.	407,951,400	112,665,202	590,616,602	250,000,000
1857.	469,955,011	121,587,515	591,545,526	200,000,000
1858.	791,537,041	138,488,957	920,025,993	868,000,000

Thus in 1836, it appears, India supplied Europe with 35,000,000 lbs. cotton more than the weight India and China took in the shape of goods. In 1846, India and China took 75,000,000 lbs. more cotton than they furnished, and in the three years ending with 1858 they took in goods 878 million lbs. of cotton, and supplied 569 million lbs. of the raw material, leaving a net demand for the latter of 350 million lbs. This is rather a crab-like motion towards supplying England with raw cotton. If we try the United States by the same rule we find that the quantity of goods purchased from England rose from 50 million yards in 1856, to

150 million in 1858, or equal to 32,000,000 lbs. raw cotton, while the quantity of the latter sent to Great Britain rose to 550,000,000 lbs. From these facts it is evident that the market for goods in India and China outruns by far the capacity of India to supply the material. In fact, the increased growth of cotton in India has not sufficed to keep up with the local consumption. When we reflect that those cotton goods consumers are more than equal in number to the cotton goods consumers in Europe, and the quantity per head of that material which each consumes is also far greater, we cannot wonder that the machine products of Europe

rapidly supplant the hand products of the Asiatics, and that the field for such operations is almost limitless. It is like supplanting the silver of Europe with California gold. The operation is profitable and resistless, and while the substitution is going on, the aggregate demand increases in the double ratio of the enhanced numbers and wealth of the people. The Asiatic market for British cotton goods has risen from 15 per cent. of the whole exports in 1836, to 40 per cent. of the whole exports in 1858, while the material derived from them has fallen from 20 per cent. of her whole purchases to 13 per cent. in 1858. It must be a bold operation who, in face of these facts, continues to speculate upon a cotton supply from India. The course of events points soon to absorbing all the mill power of England in working up India cotton for India use, and possibly the transplanting of that mill power nearer to the crop and to the goods market.—*U. S. Economist.*

Change of Food for Cattle.

Nature seeks variety, and with almost as great pertinacity as she insists on progression.

The continuous use of salt food, by man, produces scurvy, while the entire absence of either salt or animal food produces other classes of disease, and refuses to build up an organism capable of enduring disease.

All those things, which by analysis an animal is found to contain, must, of necessity, form of its food, or it cannot be perfect as an organism; therefore, no one kind of food can produce as perfect an animal, developing all its functions equally, and a variety is distinctly called for. The very instinct of an animal shows this fact. The cattle-breeders of England can scarcely be said to have succeeded, until after the introduction of the various root crops, and still we find many cattle-breeders in America, who have never raised roots at all, and who continue to feed their animals on hay and corn alone. The same area of land used by a herd of milk cows for pasture, when appropriated to a proper variety of crops, will cause them to furnish thirty per cent. more milk, and of a better quality, than when they are confined to the use of one or two kinds of food only. For the same reason that horses flourish best when traveling over an undulating country, rather than when perambulating the plains, viz., that

other sets of muscles are brought into action when they leave the dead level, and thus a single set of muscles is not called on to bear the whole fatigue. So with the variety of food: their digestive functions are in turn appealed to, and all the constituents required by the body are in turn furnished, so that a healthy result is the consequence. It is true, that cows fed on carrots give better milk in winter, than when fed on other kinds of food, but if fed on carrots alone, they soon lose their highest state of health.

Look at the cows in the distillery stables of New York, when they are fed altogether on swill, (the name given to that portion of the grain not transformed into alcohol by fermentation,) in a very short time the very membranes of the animal become so tender that they fall to pieces, and are generally diseased. Is this because the residuum of the still is not the proper food for cows? Far from it; no food is better, provided it be used in part, and not exclusively. Mr. John Wilson, at the Wallabout, had as fine cows, and in as fine condition, as any man in America, and with as profitable results; he fed them on the residuum of his distillery *in part*, but at the same time *in part* on various roots, hay, etc., and none of the difficulties arising from the exclusive use of swill, were to be seen with those cows. Carrots have a value far beyond that which can be attributed to the mere nutriment they contain; for, in addition to what they furnish in this way, they contain a quantity of pectic acid, and this carries the property of gelatinizing the vegetable and animal matters held in solution, and thus enabling the peristaltic motion of the intestines to seize hold of their contents, so that digestion of all matters of food is perfected by the presence of carrots. If the horse be fed in part on carrots, he ceases to evacuate the undigested shells of oats, bits of hay, etc. His dung is as homogeneous almost as that of a man, and it is for this reason that a bushel of carrots, and a bushel of oats, are better for the horse than two bushels of oats—not from the nutritious matter contained in the carrot, but in part from the power of the carrot to cause all the nutriment of the oat to be appropriated in the making of muscle, instead of part of it being evacuated in feces. This action is true in regard to all the vegetable substances which go to make up the variety of food

for animals; and the very instinct of every animal gives evidence of this truth.—*Working Farmer.*

A Few Reasons Why Land Should be Improved.

More may be cultivated with the same hands, because tilled with less hard labor.

Briers and shrubs disappear, grasses appear.

Cattle damage the land and grass less, because they do not have to tramp so great a space to fill themselves.

Less land required.

Less fencing.

Less trotting after cows and horses.

Less work at the smith's shop.

Fewer whips worn out.

Stronger teams.

More manure and less need for it.

A stimulus to action.

A protection against winter's frost and summer's heats.

A good example to children and neighbors.

Keeps off sheriffs and buzzards.

Stops emigration.

Produces money for books, and time for reading.

Also, school houses and churches.

Produces time to travel, to lecture on economy, and preach the Gospel.

Produces sociability and hospitality.

Makes a paradise of a barren, plenty out of poverty, and a blessing out of a curse.

The barn is filled, the dairy is filled, the purse is filled, and the soul is filled with gratitude.

If the reader will reflect, he will discover that the number of good reasons why the farmer should improve his land is almost innumerable.—*From an Old Paper of 1804.*

The Horse an Intellectual Being.

Dr. G. H. Sutherland of Dekalb, New-York, sent us a letter a few days since, in which among other things, he alluded to the importance of treating horses as "intellectual beings," and of trying the effect of "constant kindness" in training them, the result of which he believed would be the attainment on the part of the horse, to "an elevated position in the scale of intelligence, not only distinguishing themselves among their kind, but actually outstripping many

of their owners, as far as the nobler attributes are concerned." With this high appreciation of the capacity of the horse, the Doctor five years ago came into possession of a fine three-year-old colt, and he concluded to try the power of kindness in the endeavor to develop his mind. The result is given in the St. Lawrence Republican, in which paper a correspondent writes:

During my wanderings a short time since, I chanced to stop at Hermon. Hearing of Dr. Sutherland's learned colt, I had the curiosity to go and see him, and found him quite a prodigy in learning, besides being quite a curiosity. The Doctor calls him the "White Pilgrim." His color is light nankeen, white mane and tail, and white eyes. He is a splendid little horse. The Doctor tells me that he has owned him only six months—rode or drove him almost every day, (as his riding is considerable,) but still during that brief time he broke him to the saddle and harness, and taught him the different feats I saw him perform, such as standing upon his hind feet, jumping the whip, kneeling down, lying down, sitting up, and walking on three legs. He will unbuckle a common saddle-girth, and take off his own saddle; he will step up to his own master, make a very low bow, shake hands, take his coat, cap and mittens off and lay them away, and when told, bring them all back to him again. With cards he will tell his age, the days in the week, months in the year, &c. With the alphabet he will spell any simple word put to him. Spread out a number of playing cards and he will fetch the one called for. He will play a good game at *old sledge*, and beat you as often as you can him, and tell your fortune, if requested. He will waltz around his yard with quite as much ease and grace as some of our country gentlemen, and pass around a hat for a contribution at the close of a performance. He is a rare specimen of horse flesh, and his equal, I think, for beauty, activity and intelligence, could not be found, considering the labor performed by him and the short time he has been under discipline; and the Doctor certainly deserves the credit of being a "great Horse Man."

The Doctor, in the conclusion of his letter, says that until this season he never before undertook to train a horse for trotting, but that he now has a three-year-old mare he calls "Crazy Jane," out of Tom Jefferson's Black Hawk, her dam sired by George

Parish's imported St. Lawrence. With very little training she will make her mile in less than 3.30, over rather a poor track. Now, says the Doctor, "if trotting is a science that a horse can acquire by careful training, (like playing old sledge,) Crazy Jane will yet, if nothing befalls her, be one among many to demonstrate the fact that the horse has an intellect, or reasoning powers, equal if not superior to many of their brute owners, and that it can be developed and cultivated with as much certainty and profit as the minds of our children."

We look forward to the result of the Doctor's experiments with a great deal of interest; how much kindness will do to develop speed in horses is yet to be ascertained.

Evening Post.

From the Country Gentleman.

Feeding Stock as a Branch of Farm Management.

A lecture delivered to the members of the Highland Society during the Edinburgh Show week.

Dr. Anderson said: The feeding of stock, and its relation to the general management of the farm, is a subject of the very highest practical importance, and one of those in which definite information is most essential; and yet there is probably no branch of agricultural practice in which more difference of opinion exists; so much so, that while one class of persons believe it to be a highly remunerative department of farming, others with equal confidence maintain that cattle are chiefly valuable as mediums for the manufacture of manure. Even regarding details much doubt exists, and there are really but few points in which absolute unanimity exists. Looking at the magnitude of these differences, it was not without some diffidence that I ventured to select it as the subject of my address on the present occasion. Those matters, however, in regard to which doubts and differences of opinion exist, are, on the other hand, specially suited to discussion, for it is incumbent upon us to sift our information, and to ascertain what can be relied upon and what requires to be elucidated by further experiment. When this is done, it appears that there are many points on which we are very imperfectly informed, and others on which statements of the most conflicting nature have been made; and the difficulty

of drawing conclusions is enhanced by individuals maintaining the exclusive excellence of the systems they themselves practice, and insisting that because they have been led to adopt a particular opinion, their neighbor who holds the opposite one must necessarily be wrong. A great point is gained when we admit that both may be right, and when we set to work cordially to trace out the cause of the discrepancy. All branches of agriculture are now going through this phase of their existence, and principles are being gradually established. The feeding of stock is exactly one of those subjects which can be most successfully advanced by studying the principles on which it depends; and, though these involve many most complex chemical and physiological questions, we have obtained some foundation on which to go. The food which an animal consumes is partly assimilated and partly excreted; but, if it be properly proportioned to its requirements, its weight remains constant, and hence we learn that the food does not remain permanently in the body. If, now, an animal be deprived of food, it loses weight, owing to the substances stored up in the body being used to maintain the process of respiration and the waste of the tissues. The course of events within the body is, so far as known, somewhat of this kind: the food is digested, absorbed into the blood, and deposited in the form of flesh and fat in the body, a certain quantity being consumed to support respiration. If the food be properly adjusted to the requirements of the animal, its weight remains unchanged; the quantity absorbed and that excreted exactly corresponds to one another; but, if we increase the food, a part of the excess will be deposited in the tissues and add to its weight. Now the quantity absorbed depends upon the state of the animal—a lean beast thoroughly exhausting its food, while when it is nearly fat, it takes only a small proportion. So, likewise, if the quantity of food be greater than the digestive organs can well dispose of, a certain quantity escapes digestion altogether, and is practically lost. The problem which the feeder has to solve is, how to supply his cattle with such food, and in such proportions, as to ensure the largest increase with the smaller loss. In solving this problem we must, in the first place, consider the general nature of the food of all animals, the constituents

of which may be divided into three great classes; the nitrogenous matters, which go to the formation of flesh; the saccharine and oily, which support respiration and form fat. It is sufficiently obvious that as the two great functions of nutrition and respiration must proceed simultaneously, the most advantageous food will be that which supplies them in the most readily assimilated forms, and in proper proportions. In regard to the first of these matters, it will be obvious that if two foods contain the same quantity of nutritive matters, but in one way they are associated with a larger quantity of woody fibre or other non-nutritious matter, the latter will have considerably less value than the former. The necessity for a proper balance of the two great classes of nutritive constituents is also sufficiently obvious; for if, for example, an animal be supplied with a large quantity of nitrogenous matters, and a small amount of respiratory elements, it must, to supply a sufficiency of the latter, consume a much larger quantity of the former than it can assimilate, and there is practically a great loss. We may determine the proper proportion of these substances in three different ways: 1st, we may determine the composition of the animal body: 2nd, we may examine that of the milk, the typical food of the young animal; and 3rd, the results of actual feeding experiments may be examined. The composition of the animal body is a subject on which, as it appears from the recent experiments of Lawes and Gilbert, great misapprehension has hitherto existed. It has always been supposed that by far the larger proportion consisted of nitrogenous matters; but that is quite an error, and, even on lean animals, the fat greatly preponderates over the lean. A lean sheep, for instance, contains one and a half-pound of fat for every pound of dry nitrogenous matter, and when very fat it may contain six times as much fat as lean. The inference obviously is, that the food must contain a very large quantity of non-nitrogenous matters. The milk, which contains a number of each of the three great classes of nutritive matters, also affords us instruction, although, of course, more especial as regards the feeding of young stock, when the conditions are different from those existing in the mature animal. But, however valuable the data derived from these experiments may

be, they are less important than those derived from actual feeding experiments. In fact, it by no means follows that the proportions in which the different substances are found in the animal are exactly those in which they ought to exist in the food. On the contrary, it appears that while one-tenth of the saccharine and fatty matters are assimilated by the animal, only one-twentieth of the nitrogenous compounds, and one thirty-third of the mineral substances in the food are assimilated by the animal. On the other hand, however, it must be remembered that the particular compounds also exercise a very different influence. Thus a pound of fat in the food, when assimilated, will produce a pound of fat in the animal; but it requires about two and a-half pounds of sugar or starch to produce the same effect. The broad general principle arrived at is, that we must afford a sufficient supply of readily assimilable food, containing a proper proportion of each class of nutritive substances. But there are other matters also to be borne in mind, for the food must not only increase the weight of the animal, but also support respiration and animal heat; and the quantity of food required for this purpose is large. It appears from Boussingault's experiments, that in a cow eighteen ounces of nitrogenous matters are required to counterbalance the waste of the tissues—a quantity contained in about ten or twelve pounds of wheat flour; and it is well known that an ox expires four or five pounds of carbon daily, to supply which one hundred pounds of turnips are required. We see from this the large quantity relatively to that used up which is required for the maintenance of these functions, and the importance of adopting such measures as, by restraining them within the narrowest possible limits, produce a saving of food. The diminution of muscular exertion, and keeping the animals warm, so that a small quantity of food may be required to act as fuel to maintain the animal heat, are the most important considerations. Although the presence of a sufficient quantity of nutritive matters is an essential qualification of all foods, their mechanical condition is not unimportant, for unless its bulk be such as to admit of the stomach acting upon it properly, there must be an appreciable loss; and there is no greater fallacy than to suppose that the best results are to be obtained by the use of

those which contain their nutritive matters in a very small bulk. As a practical question, the principles of feeding are restricted to determining how the staple food produced on the farm can be most advantageously used to feed the cattle kept on it, and on this point much requires to be said. It appears that they can best be made use of when combined with more highly nutritious food, such as oil-cake or rape; and when this is properly done, a very great advantage is derived. It appears from experiments that sheep, which, when fed on hay only, attain a weight of ninety pounds, reach a hundred when rape is added. The subject cannot be completed without referring to the value of the dung produced, which has been very variously estimated. The experiments referred to in the course of the address appear to show that, of food generally, about one-third to one-fourth of the money value, and seven-eighths of the valuable matter, appear in the dung. Dr. Anderson concluded by saying, that he had by no means attempted to exhaust the subject, but had given only a sketch, trusting that the observations of others might fill up the details.

Marvels of Human Caloric.

The Eclectic Review declares that we are "all living stoves—walking fire-places—furnaces in the flesh," if those terms can be applied to an apparatus for the express production of human caloric. After stating the fact of the latent heat of the human frame, the writer says:—

Suppose it to be the month of January, when winter is presumed to be reigning in full vigor, and every inanimate object appears to have been drained of its caloric; still the human structure will exhibit a surplus of sixty-six degrees above the freezing point. Why is that? How does it happen while a bronze statue fluctuates in its temperature with every passing breeze, the living organism maintains its standard heat unimpaired, and preserves its tropical climate within, though the air should be full of frost and the ground enveloped in snow? It is manifest that we must have some power of "brewing" caloric for ourselves.

Assuming that our bodies are veritable stoves, the reviewer proceeds to explain whence we procure our fuel. Fortunately our coal and fire-wood, he adds, are stored up in a very interesting form. They are

laid before us in the shape of bread and butter, puddings and pies; rashers of bacon for the laborer, and haunches of venison, or turtle soup, for the epicure. Instead of being brought up in scuttles, they are presented in tureens, dishes, tumblers, or all of them in pleasant succession. In fact, whenever you send a person an invitation to dinner, you virtually request the honor of his company to take fuel; and when you see him enthusiastically employed on your dainties, you know that he is literally shovelling coke in his corporal stove.

All food must contain two species of elements, if it is to do its duty efficiently. There must be a portion which is available for the repair of the frame, which will remake it as fast as it is unmade, and which, therefore, is called the plastic or body-building materials. But there must be a certain quantity of non-azotized matter, that will combine with oxygen, in order that it may undergo combustion. If we take milk, the "model food" of animals, as a criterion of proportion, we shall find that three times as much of the latter is needed as of the former. For one pound of simply restorative provender, an energetic man requires four of digestible fuel. The ultimate form in which this fuel is burnt, is that of carbon, hydrogen, and sulphur; but proximately, we swallow it in the shape of fat, starch, sugar, alcohol, and other less inflammatory compounds. By far the most incendiary of these substances is fat; ten pounds of this material, imported into your stove, will do as much work—that is, will produce as much warmth as twenty-four of starch, twenty-five of sugar, or even twenty-six of spirits.

It is pleasant to observe how sagaciously the instinct of man has fastened upon the articles which will best supply him with the species of fuel he requires.

The Esquimaux, for example, is extremely partial to oil fare. He does not know why. He never heard of the doctrine of animal heat. But he feels intuitively that bear's grease and blubber are the things for him. Condemn him to dine on potatoes or maize, and the poor fellow would resent the cruelty as much as a London Alderman of the Old School, if sentenced to subsist on water gruel alone. And the savage would be perfectly right. Exposed, as he is, to the fierce cold of the northern sky, every object around him plundering him of his

caloric incessantly, what he needs is plenty of unctuous food, because from this he can generate the greatest quantity of heat. On the other hand, the native of the tropics, equally ignorant of animal chemistry, eschews the fiery diet which his climate renders inappropriate, and keeps himself cool on rice or dates, or watery fruit.

For the Southern Planter.

Farm Drainage.

Book-farmers and lovers of agricultural literature are indebted to Henry F. French, of New Hampshire, for a volume of very pleasant reading; and practical farmers, owners and tillers of the soil, are under still greater obligations to him—though it is probable they will be slow to acknowledge it, for they will be very slow in finding it out.

Thorough drainage, the removal of all stagnant water to a safe distance from the roots of cultivated plants, is the basis of good husbandry. Do what you will with water-logged land, it remains unimproved. How much of this or of any country is undrained by nature, and in need of art to remove surplus water, can be determined only by careful observation; and it is only within the last twenty or thirty years that all departments of the British government have become convinced of the immense advantages of draining; but they are convinced, so thoroughly convinced, that the legislation of that most conservative of nations has appropriated about twenty millions of dollars to agricultural draining. And as the law now stands in that country, a man's land may be drained, and a due portion of the expense charged to him against his consent. Such a large outlay of money, and an attack, apparently so radical, upon landed interests, by the most cautious, enlightened and practical of European States, is amply sufficient to draw the attention of proprietors in this country; and French has written the entertaining book, with the modest title which heads this notice, for the purpose of introducing to American farmers, in a plain and perfectly intelligible way, the system of complete drainage, which is the grand step made in the progress of agriculture in Great Britain.

He has done this so fully and fairly, that his book leaves nothing to be desired in the way of an elementary treatise. The histo-

ry, philosophy and practice of draining are all touched so gracefully, agreeably, and yet so PRACTICALLY, that we might well mistake Mr. French for a *blind-ditching* philosopher and tile-pipe layer combined, instead of conceiving him, as he is understood to be, a lawyer and judge.

The book has fun in it, too, as well as philosophy and hard licks—witness a quotation from p. 183, where he speaks of the importance of guarding the *outlets* of secret drains from the intrusion of outsiders—and be it remembered, that drains constructed of tile cannot be entered, except at the outlets, by anything larger than an earthworm:

"There are many species of 'vermin,' both 'creeping things' and 'slimy things, that crawl with legs,' which seem to imagine that drains are constructed for their especial accommodations. In dry times it is a favorite amusement of moles, and mice, and snakes, to explore the devious passages thus fitted up for them, and entering at the capacious open front door, they never suspect that the spacious corridors lead to no apartments; that their accommodations, as they progress, grow 'fine by degrees, and beautifully less,' and that these are houses with no back doors, or even convenient places for turning about for a retreat. Unlike the road to Hades, the descent to which is easy, here the ascent is inviting; though, alike in both cases, '*revocare gradum, hoc opus, hic labor est.*' They persevere upward and onward till they come, in more senses than one, to 'an untimely end.' Perhaps, stuck fast in a small pipe-tile, they die a nightmare death; or, perhaps, overtaken by a shower, of the effects of which, in their ignorance of the scientific principles of drainage, they had no conception, they are drowned before they have time for deliverance from the straight in which they find themselves, and so are left, as the poet strikingly expresses it, 'to lie in cold *obstruction* and to rot.'"

But if the farmers of Virginia want to know all about the wonderful and indestructible value of drainage, they must get Judge French's book and study it carefully. It will "pay" in the pleasure of perusal—and those who never saw a draining tile, will understand how infinitely superior to all that has preceded it, is the modern system of *thorough drainage*.

GREEN SPRINGS.

Nov. 22d, 1859.

For the Southern Planter.

BALTIMORE, Dec. 7th, 1859.

Dear Sir,—In the September, or October No. of your journal, is an article copied from the "Country Gentleman," on the beneficial influence of droughts, which does not do me full justice, as in it I am only mentioned as having made some experiments to prove the facts stated in that article.

The truth of the matter is, that the whole idea, and all of its proofs, are exclusively my own. It was brought to my mind by observation, during the great drought of 1854, and I instituted at once a series of experiments, to show the *modus operandi* of the beneficial influence of droughts, which at once received the sanction and was adopted by the highest scientific minds in this country. Ministers of the Gospel alluded to it in their sermons as one more proof that God was ever kind, though we might seem to suffer from this Providence.

I send you, by this mail, my Fifth Report to the House of Delegates, with the request that, in your next number, you will copy the article entire, as found on page 56 of that Report.

With sincerest wishes for your prosperity in business,

I remain yours, very truly,
JAMES HIGGINS.

Ultimate Benefits of Droughts, and the Mode in which they Act to Improve Land.

It may be a consolation to those who have felt the influence of the late long and protracted dry weather, to know that droughts are one of the natural causes to restore the constituents of crops and renovate cultivated soils. The diminution of the mineral matter of cultivated soils takes place from two causes:

1st. The quantity of mineral matter carried off in crops and not returned to the soil in manure.

2d. The mineral matter carried off by rain water to the sea by means of fresh water streams.

These two causes, always in operation, and counteracted by nothing, would, in time, render the earth a barren waste, in which no verdure would quicken and no solitary plant take root. A rational system of agriculture would obviate the first cause

of sterility, by always restoring to the soil an equivalent for that which is taken off by the crops; but as this is not done in all cases, Providence has provided a way of its own to counteract the thriftlessness of man, by instituting droughts at proper periods to bring up from the deep parts of the earth food on which plants might feed when rains should again fall. The manner in which droughts exercise their beneficial influence is as follows: During dry weather a continual evaporation of water takes place from the surface of the earth, which is not supplied by any from the clouds. The evaporation from the surface creates a vacuum, (so far as water is concerned,) which is at once filled by the water rising up from the sub-soil of the land; the water from the sub-soil is replaced from the next stratum below, and in this manner the circulation of water in the earth is the reverse to that which takes place in wet weather. This progress of the water in the earth to the surface manifests itself strikingly in the drying up of springs, and of rivers and streams which are supported by springs. It is not, however, only the water which is brought to the surface of the earth, but also all that which the water holds in solution. These substances are salts of lime, and magnesia of potash and soda, and indeed whatever the sub-soil or deep strata of the earth may contain. The water, on reaching the surface of the soil, is evaporated, and leaves behind the mineral salts, which I will here enumerate, viz: Lime, as air-slacked lime; magnesia, as air-slacked magnesia; phosphate of lime, or bone earth; sulphate of lime, or plaster of Paris; carbonate of potash, and soda, with silicate of potash and soda, and also chloride of sodium, or common salt. All these are indispensable to the growth and production of plants which are used for food. Pure rain water, *as it falls*, would dissolve but a very small proportion of some of these substances, but when it becomes soaked into the earth it there becomes strongly imbued with carbonic acid from the decomposition of vegetable matter in the soil, and thus acquires the property of readily dissolving minerals on which before it could have very little influence.

I was first led to the consideration of the above subjects by finding, on the re-examination of a soil which I analyzed three or four years ago, a larger quantity of a

particular mineral substance than I at first found; as none had been applied in the meantime, the thing was difficult of explanation until I remembered the late long and protracted drought. I then also remembered that in Zacatecas and several other provinces in South America, soda was obtained from the bottom of ponds, which were dried in the dry, and again filled up in the rainy season. As the above explanation depended on the principles of natural philosophy, I at once instituted several experiments to prove its truth.

Into a glass cylinder was placed a small quantity of chloride of barium, in solution; this was then filled with a dry soil, and for a long time exposed to the direct rays of the sun on the surface. The soil on the surface of the cylinder was now treated with sulphuric acid, and gave a copious precipitate of sulphate of baryta.

The experiment was varied by substituting chloride of lime, sulphate of soda, and carbonate of potash, for the chloride of barium, and on the proper re-agents being applied in every instance, the presence of those substances was detected in *large* quantities on the surface of the soil in the cylinder. Here, then, was proof positive and direct, by plain experiments in chemistry and natural philosophy, of the agency, the ultimate, beneficial agency, of droughts.

We see, therefore, in this, that even those things which we look upon as evils, by Providence are blessings in disguise, and that we should not murmur even when dry seasons afflict us, for they too are for our good. The early and the latter rain may produce at once abundant crops, but dry weather is also a beneficent dispensation of Providence in bringing to the surface food for future crops, which otherwise would be forever useless. Seasonable weather is good for the present, but droughts renew the storehouses of plants in the soil, and furnish an abundant supply of nutriment for future crops.

I am happy to state that Prof. Henry, of the Smithsonian Institute, has fully endorsed the above views.

If the effect of this had only been to teach men patience under seeming evils, and to add another proof to the goodness of our Creator, I should have been amply rewarded for all sacrifices that I have endured in my present position. If I could teach mankind to be patient under present

evils, in the certain anticipation that they will bring to them ultimate good, then would I be contributing much to the cause of human happiness. Apart from this view of the case, however, the above facts have a great practical bearing on the operations of farming. In soils that have an impervious sub-soil, and from which the water runs off and does not soak through, it is apparent that no benefits can arise from droughts; if the water does not soak through a sub-soil in wet, it cannot arise in dry weather, and this being the case, nothing can be brought up from below; the cultivators of such soils will endure all the evils of drought on present, and derive no benefit from them on future crops. He, therefore, is taught to loosen and break up those impermeable sub-soils by means of draining, deep plowing, and sub-soiling, when these sub-soils contain nothing injurious to vegetation. It teaches the cultivator of the soil that he should so prepare it as to reap the advantage of his labor in a good season, and when a drought comes, he will be comforted by the reflection that its future benefits will compensate him for all his present losses.

For the Southern Planter.

Tobacco the Bane of Virginia Husbandry.

(CONTINUATION OF No. 5.)

It may be confidently asserted that tobacco stands convicted of every attribute that constitutes an idol—an idol, as already shown, of the most demoralizing, and otherwise most extensively injurious character to be found in the history of our fallen race. Its evils were early detected, and although exposed by all the influence of royalty* and edicts of arbitrary governments, denouncing the penalty of death† against offenders—even these potentates, backed by the unanswerable arguments in support of their cause, availed nothing in staying the progress of the vice of tobacco-using—proving that in the designs of an overruling Providence—apparent present evils were being made subservient to producing ultimately, greatly overbalancing good. Mysterious are the ways of Providence! and in no part of the divine economy does He appear more mysterious than in making the wrath of man to praise Him.

* Witness King James' Counterblast.

† The Ottoman Sultan, capital punishment.

But as to the extent of the tobacco idolatry—the millions of men who worship in its world-wide temple—the millions of money expended to produce and consume the incense offered upon the altars of this modern God, prove the truth of the assertion, that all other idolaters are small in comparison with it. It undeniably consumes more of the treasure of the earth for its support than is expended for all the Christian, benevolent, and educational institutions of the age, until it has become so interwoven in the very texture of society, as to stand pre-eminently the master vice of our sin-ruined world.

If the charges made against tobacco be sustainable, how can it be otherwise accounted for, that natural human beings become its votaries—its deluded victims—its abject slaves—but by diabolical fascination? A further question may be asked—how could such a loathsome evil, poisoning the bodies and destroying the souls of men, have attained to such an overmastering power in all the earth? the only true solution to be given, is the fallen state of man :

“God made man upright, but he has sought out many inventions.”

“Man is as prone to evil as the sparks fly upwards.”

But in the present moral enlightenment of the world, and this progressive age, why do not Christians rise up and protest against the degrading and disgusting idolatry? Simply because the idol has an overwhelming majority enlisted on his side, and it is to be feared only for the want of faith and moral courage on the part of the followers of the Great Captain of salvation.

In the gloomiest day of the history of our holy religion, 7,000 men were found who had not bent the knee to the idol God of the day—and shall there not be found among the millions of professing Christians of our day, a sacramental host of Gods elect—a band of volunteers to rally to the summons of the Almighty conqueror—and range themselves under the standards inscribed by his own finger with such inspiring mottoes as

“Come out from among them and be ye separate.”

“Ye shall not follow a multitude to do evil.”

“Ye cannot serve God and Mammon.”

What boots the superior number of the enemy against the host of the Almighty, who can make one to chase a thousand, and has already made proclamation that his warriors elect, bearing the ægis of faith, shall “put to flight the army of the aliens.”

All things indicate that the crisis has arrived when the conflict with this army of new idolaters already begun, must wax hotter and hotter to the end—for it is in manifest accordance with God's word, that every form of idolatry must fall, before Christ's kingdom can come upon the earth. And what Christian whose eyes are not “holden” may not see that this most universal of all idolatries, has been Providentially permitted in mercy and divine goodness to offer a new text to show who “will come out from among them,” and stand on the Lord's side—by abandoning a monstrous evil—by a simple act of self-denial, far easier than giving up father or mother, sister or brother, house and lands, or a right hand, or a right eye, as in duty bound under our covenant with God; but herein by a new and glorious dispensation, nothing is required to be given up but a morbid, unnatural appetite, with its legion of concomitant evils, to be replaced by innumerable present blessings, and in the future an eternal weight of glory. “How wonderful is the goodness of God, His ways past finding out!”

It is freely granted that the cultivation of tobacco, in the last preceding ages, was the best practical course of opening a wilderness and subduing the earth for the purposes of wholesome agriculture; but that mission of tobacco has been fulfilled, and the country well-nigh destroyed by its impoverishing effects upon the soil, thus showing a necessity for a change of the fatal culture which produces only a deleterious, demoralizing drug, for a course which produces the wholesome necessities of life.

We have not yet presented a tythe of the evils to be subdued, and the benefits to be won by the anti-tobacco warfare. If any human mind has yet fully comprehended, surely no one has as yet fairly shown the length and breadth and depth and height of the gigantic evil. Tobacco stands convicted by the unanimous verdict of its own devotees, that in the end it does them no good—but on the contrary, much harm. And here, finally, it may be well, before dismissing the subject, to exhibit the protean monster in some of the features

in which he mars the image of God in his creature man, although become so familiar to us as hardly to be recognized as the offspring of their true parentage. Nevertheless, it may be for the good of some to be told again that the discoloured skin and stained teeth, nervous tremor, dyspepsia, a species of salivation both filthy and disgusting—and a tainted breath, which sooner or later make the man a moving mass of offensiveness in the nostrils of the uncontaminated—and how much more so in His, who is of purer eyes than to behold iniquity—all, all these awful effects are the work of tobacco, seen every where around us, and known of all men.

Who would dare to impugn the wisdom and economy of God's Providence, in tolerating for a time and for temporary good purposes, that which may now be demonstrated to be an unmitigated evil. This, it is humbly conceived, may be in strict keeping with the principles of the divine government, for He who sees all things from the beginning to the end, carries on his government of the Universe by machinery too vast for the limited comprehension of shortsighted mortals—the light revealed by the progress of Christian morals must be our polar star.

If this skeleton sketch of the mammoth subject of the day shall bring out abler minds to do justice to it, I shall be content. That it must sooner or later be called up to the public attention is manifest, for while the world is so fully taken up in the tobacco-sin, it may be confidently asserted it cannot be evangelized. But it is announced in His word that the world shall be evangelized, and consequently all sin and idolatry, and everything inconsistent with His purity, shall fall before the sovereignty of His immaculate truth.

JOHN H. COCKE.

Feeding Stock.

Omnibuses constitute one of the convenient institutions of London as many other large cities. The London Omnibus Company use no less than 6,000 horses. In feeding so large a number of animals it is important to establish that method that will sustain the animals best on the smallest amount of food, or at the least cost. In order to determine this fact, the Company have made the experiment of feeding 3,000 of the horses on bruised oats, cut hay and straw, (for the British term of

bruised, we Americans would understand it as ground in one of the numerous stock mills now in use). The other 3,000 were fed in the usual way on uncut hay and whole oats, the horses doing their own grinding and cutting.

The allowance, according to the first system: bruised oats, 16 lbs.; cut hay, 7½ lbs., and cut straw, 2½ lbs. The allowance, according to the second: unbruised oats, 19 lbs.; uncut hay, 13 lbs. The bruised oats, cut hay, and cut straw, amounted to 26 lbs., and the unbruised oats, &c., to 32 lbs. The horse which had bruised oats, with cut hay and straw, consumed 26 lbs. per day, and it appears it could do the same work as well, and kept in as good condition as the horse that received 32 lbs. per day. Here is a saving of 6 lbs. per day on the feeding of each horse receiving the ground oats and cut hay and straw. The advantage thus gained, the Company estimate at 5 cents a day on each horse, amounting to the handsome sum of \$300 per day to the Company on their entire stock of 6,000 head.—*Ohio Valley Farmer*.

From the Country Gentleman.

EVENING DISCUSSIONS IN AGRICULTURAL HALL.

THURSDAY EVENING, Oct. 6.

Manures---Soiling.

The attendance, this evening, was large, and the discussion animated. Dr. CRISPELL, of Ulster Co., occupied the chair.

In opening the discussion, T. C. PETERS, of Genessee, spoke of the importance of having land in as fine a tilth as possible before the application of manure was made. He was followed by Judge LELAND, of Saratoga, who stated that in his opinion, manure spread in the fall was better than to have it lay in heaps until spring. Upon his land, which was a clayey loam with a subsoil of granite, he had received no benefit from plaster. Judge BLODGETT, of Lewis, remarked that he did not believe in applying manure before the ground was in a fit state to receive it, and thought a hard soil would obtain no benefit from a surface application of manure. In regard to pasture land, he said that the natural sod was better and more productive than if once broken, as it was difficult to reinstate them. Meadow lands, if deeply tilled and the manure plowed under, give an inducement for the roots of the plants to penetrate the soil, which which they would not have if the soil was hard and unyielding. He believed in top-dressing meadows *after* the land had been properly seeded down, by a good coat of manure plowed under to begin with. He thought all depended upon a good soil and a fine tilth. His land was a vegetable loam, with a hardpan at the bottom.

L. F. ALLEN, of Black Rock. Every farmer should be allowed to tell his own story in his own way, for there are various causes which influence his circumstances, both natural and artificial, such as soil and climate, near or remote from market, &c., which he himself best knows, and which others are entirely ignorant of; and no man's system of farming should be condemned by another, simply because it does not apply to *his* individual circumstances. Hence we see that men of good judgment and careful experience differ widely, each in his own way. If a farmer hears another farmer say what *he* knows to be best, how can the former practice what the latter teaches? Soils need different treatment, and that treatment which one person gives his land and which succeeds, may not succeed with another. Doubtless some soils when once laid down, are better to be kept so; others need to be often plowed up. In good dairy regions of England, pastures have laid, since the conquest, with a surface manuring, and now produce better than ever. The soils of Westchester have never been moved, and are now better than ever before. In the southern counties, three-fourths of the land has never been plowed either in mowing or pasture, and their meadows now yield three tons per acre. These meadows also show at the present day, the cradle-knolls of centuries ago, and the owners of these farms will not let the sod be broken upon them. They know very well that there is a rich vegetable deposit of leaves that has constituted a humus in the soil, which if once broken is lost forever.

The PRESIDENT stated that it was proposed to introduce the subject of soiling, in connection with the one then under consideration, and as Hon. Mr. QUINCY was again present, in behalf of the farmers of New York, he would call upon the gentleman to give some additional facts and details in regard to the system which he had alluded to the evening previous.

Hon. JOSIAH QUINCY, Jr., of Massachusetts, took the stand, and was loudly cheered. The substance of his remarks were as follows:

In connection with the subject of soiling, one of the first questions asked is, how much land does it require to keep a cow? I have learned that one square rod of grass, barley, oats, or corn, is sufficient for the food of a cow a single day. The best fodder for the purpose of soiling is grass, oats, Indian corn and barley. My system is this: I use grass until July; about the 5th of April, oats are planted at the rate of four bushels per acre; they are also planted on the 20th of April, and the 1st of May. This lasts through July and August, and corn so planted will remain succulent for about ten days. The southern variety of corn is then sown in drills, in the quantity of three bushels the acre, which furnishes food for September and October. Barley is then planted ten days apart, which lasts till vegetables come

on. In winter the feed consisted of hay, cotton-seed meal, and roots—[Mr. QUINCY here spoke of the advantages arising from this system, which he alluded to in his remarks the previous evening, and continued]—The great increase in the soiling system is as seven to one; that where only one cow was kept without this practice, seven can be kept by it, and I have demonstrated that one acre of land in a good state of cultivation, will afford sufficient food to keep three cows through the season. [Here the gentleman alluded to the manner of using liquid manure, as practiced by Mr. MECCHI in England, which consists of a series of pipes in the ground, through which liquid manure is forced by means of steam power—which has before been described in the Co. Gent.—and he also spoke of the system of manuring in Scotland, by which their lands have been made to produce from five to seven crops in one year, and further remarked.] It has been well said that there are three important elements, or principles, which constitute a good farm; the first of these is manure, the second is *manure*, and the third is MANURE! I place but little confidence in patent fertilizers, so great is the adulteration in most kinds, but strongly urge each farmer to raise his own manure upon his own farm. Muck I use as an absorbent, by placing it in a gutter in the stable for my cows, which gutter is eighteen inches wide and four deep. There is a cellar under the stable, into which the manure passes. I am sorry to say that I keep only about twenty cows;—in the morning and evening these are let out in the yard, where they remain a few hours, as it is not necessary that they have a great amount of exercise. My cows are perfectly healthy, having never lost an animal, and this system appears to agree perfectly with their health and comfort in every respect. They do not suffer from drouth or loss of pastures. The mowing is usually done in the morning, and the cows are fed five times during the day. I think one man would be employed half of his time in feeding twenty cows, if the fodder was not too remote from the stable. One other advantage of the soiling system was, that it added in importance and numbers to the list of farmers in our country. Mr. QUINCY then concluded:—

The temperature of the ocean is always the same, and has the same influence upon the surrounding atmosphere—so it is with the farmers of America. From their quiet and retired homes they are the men who, in peace or war, are ever ready to serve their country when she calls. I have always had for my neighbor a family who has occupied as prominent and honorable a position in American history as any other. One of this family, one hundred years ago, kept a school in Worcester, then considered an inland town. I need not add his name was JOHN ADAMS. Later in life I once asked him when he thought the bond

was severed between England and this country—if at the signing of the Boston “Port Bill,” or the meeting at Independence Hall in Philadelphia? “Oh, no!” he answered, “for when I kept school in Worcester, and heard the FARMERS talk, then I knew that separation must take place.” [Cheers.] And so let it be now, and let the farmers prove, by their love and adherence to the common good of our country, that they have not degenerated, but that the same blood flows in their veins now that warmed the hearts of the farmers of the Revolution. [Cheers.]

Mr. GEDNEY, of Westchester.—I draw out my farm manure in spring, and then turn it under for corn, after which wheat is sown with top-dressing of bones. I keep 20 cows, from which I save, in one year, about 100 hogsheads of liquid manure, by means of a series of spouts and a large tank constructed for the purpose. The liquid is pumped from the tank, and sprinkled upon the land as a top-dressing. In six months it will increase the product of grass, per acre, three-fourths. Keep my cows up in stables all summer—i. e., at night.

Mr. STEWART, of Hamburg, Erie Co.—For three years I have practiced soiling, and find it a benefit both to land and animals. In the course of my experiments, I have found that one acre cut is equal to four acres in pasture. The manure that is saved by this system more than pays all the expenses attendant upon it; and the saving in fences would, in most localities also pay all expenses. The increase in the value of the animals is also about five-fold. I practice feeding cut straw, steamed and mixed with one pint of corn-meal to the bushel. This, I find, makes better feed than an equal amount of timothy. I think one man can care for fifty cows, and milk ten of them in addition, if the feed is close by. By this method I make \$500 per year more than by the old system of pasturage. For feed I use roots till 20th of May, and then cut clover until after haying. Have raised corn, and consider it the best fodder for the purpose, as it comes nearest to grass. I have also found that butter made from it will keep longer than that made from any other feed. For winter, I mix carrots and oil-meal with cut straw, and give three bushels per day to each cow. Food is steamed before it is given out.

Mr. GEDNEY, of —, considered one acre sown with corn in June, equal as food for milch cows to ten acres of rowen. Had found no advantage from using steamed provender.

Mr. GEDDES made some interesting statements, in which he said that each farmer must adapt his own plans to his own case. If I improve the system of agriculture, and the product of my farm, under my own management, that is my aim and end. If you, under a different treatment, become successful, and im-

prove your farm thereby, I am not to point out to you a different mode.

Several others present gave their views; which proved nothing more than that each one has his own opinions in regard to soils and their management, and to manures and their application.

As the vote of adjournment was made, SOLON ROBINSON rose and requested the farmers present to adjourn to their own homes and school districts, establish a “Farmer’s Club,” and maintain the same by active talk and discussion upon topics regarding their avocation. In no other way could so much valuable knowledge be gathered up.

Salt as a Manure.

The following questions were addressed to the editor of the *N. E. Farmer*: How salt is to be applied to the soil, whether it should be mixed with barn manure or sown broadcast? If mixed with manure, in what proportion? If sown, how much to an acre, at what season, and what kind of soil is most benefitted by it? Would it be advantageous to use it when barley is to be grown? How would it affect pasture land? And further, would solicit the opinion of some experienced on the profit likely to accrue from purchasing salt at twenty cents a bushel, for agricultural purposes.

Would you consider it profitable to buy air-slacked lime, at eight cents a bushel, to put on the land?

To these questions the editor replies: We have often used salt as a fertilizer, but have not followed the experiments with sufficient accuracy to make them worthy of note. So we refer to others, and find plenty of evidence that salt may be used as a fertilizer where it can be obtained at low rates, where it is dirty or in a damaged state so as to make it unfit for common purposes.

Salt renders dry loam more susceptible of absorbing moisture from the air, and this is of great importance, because those soils which absorb the greatest proportion of water from the atmosphere, are always the most valuable to the cultivator. On heavy undrained soils it would not act beneficially.

When sprinkled slightly over manure heaps it checks the escape of the carbonate of the ammonia, and tends to prevent undue fermentation. It not only acts on vegetation as a stimulant, but serves as a direct constituent or food to some kinds of plants.

Applied to grain crops on light soils, at the rate of 500 pounds to the acre, salt in-

creases the produce of seed, and very much improves its weight to the bushel, and its quality. On grass lands and clover, salt has a good effect, rendering the herbage more palatable to stock.

Mangold wurtzel, manured with salt mixed with farm-yard dung, at the rate of ten or twelve bushels, or even more, an acre, grows luxuriantly. It would, undoubtedly, be useful on a barley crop, because the soil adapted to the crop is the kind of soil most benefitted by salt.

We do not doubt but that salt at twenty cents, and air-slaeked lime at eight cents per bushel, would be profitable on lands where they are actually needed.

Animal Food---Vegetable Food.

BY J. T. MOUNDVILLE.

The experience of prize fighters certainly does not favor the notion that a purely vegetable diet is most favorable to the development of bodily vigor. On a day appointed, two of these professors of pugilism agree to fight for a sum of money, and, of course, he who can bear or inflict the most punishment, or can keep on his legs the longest, is declared the winner, provided he has taken no unfair advantage of his opponent. It is generally known that long before the day of battle, these men are subject to a system of training as regards both diet and exercise; and the diet which they, by long and accumulated experience, have found most favorable to the development of bodily vigor, consists mainly of the lean parts of fresh meat, chiefly mutton, and not by any means of vegetables exclusively. Now to win one of these battles, a man must have great muscular power, great activity, great powers of endurance and indomitable energy and pluck, and the use of animal food is proved by them to be highly favorable to the development of these important qualities, for however brutal may be the exercise of this power by these men; yet it must be admitted that these are highly useful and desirable qualities to be possessed by the great mass of mankind, who have to win their daily bread by bodily labor.

It is customary in England to hold fairs at stated times for the sale of stock and other farm products, and at these fairs, farm hands and mechanics assemble from the country around, and by way of amusing themselves, usually get up some sort of ath-

letic games, foot races by men being one. It is known for weeks beforehand, that Tom Jones is going to run Bill Smith, and the discussions which ensue as to the relative merits of the men and the anticipation of the good time they will have at the fair, no doubt tends to lessen their toil.

Now it so happens that a man is at present doing some work for me who was remarkable in his youth for his swiftness of foot, and ran for several prizes. I learn from him that the runners had to go through a process of training similar to that of the prize fighters, as regards exercise and diet. The chief food consisted of the lean parts of legs of mutton, and their drink, tea, made of fresh lean beef, put into cold water and simmered two or three hours, all fat which floated on the surface being carefully skimmed off; and their vegetable food consisted of dry bread toasted, and but very little of that. The evidence afforded by the experience and practice of these men, also goes to prove that the use of animal food is favorable to the development of great bodily vigor, of great muscular power, activity and bottom.

The men who have made the British railways are remarkable among the working men of that country for the great amount of severe labor they are able to accomplish, and for the great amount of animal food they consume. They work by the piece or job, and, of course, the more wheeling and shoveling they do, the more wages they receive. A neighbor of mine belonged to this class in England, and conversing with him some time ago about their liberty, and especially about their mode of living, he told me it was common for a man to buy fourteen or fifteen pounds of beef on a Saturday night for his week's supply of animal food, and that it not unfrequently happened that the beef had all vanished before the week was ended, and that they had to apply to their grocer for a supplement of bacon to carry them through. But it may be said, if these men, subsisting largely on animal food, were able to accomplish such feats in fighting, running and digging, there is no proof that other men employed at the same kind of work, but living on purely vegetable diet, were not able to do as much work, or more. Well, it so happened that an English contractor undertook to make a French railway, and he took with him a number of "navies," and employed French

laborers as well, but it was soon found that the Frenchmen were not capable of getting through anything like the same amount of work. This coming to the ears of a French physician, who was somewhat incredulous, he proceeded to make personal inquiries, to ascertain the truth of the matter, and found the fact was so. He then inquired how both parties lived, and he admitted the mystery was at once solved. The Frenchman's bread and fruit, and his cooked dishes ingeniously contrived to tickle the palate, and economize nutritious but costly food, was considered but sorry fare for men who had to endure such severe labor, compared to the substantial diet of the English navy.

This reminds me of a paper read before the Horticultural Society of London in 1831, by its President, Andrew Knight. It is on a peculiar mode of cultivating the potato, and in a few prefatory remarks, Mr. Knight contends that potatoes, with a small quantity of meat, will afford better and more healthy food than bread in any quantity, and in support of his opinion, refers to the injurious effects of "a purely vegetable diet" on the health of the French peasantry. They are a very temperate race of men, and they possess the advantage of a very dry climate. Yet the duration of life amongst them is very short, scarcely exceeding two-thirds of the average duration of life in England, and in some districts much less. Dr. Harkius, in his medical statistics, states upon the authority of M. Villermé, that in the department of Indre, one-fourth of the children born die within the first year, and half between fifteen and twenty, and three-fourths are dead within the space of fifty years. Having inquired of an eminent French physiologist, M. Dutrochet, who is a resident of the department of Indre, the cause of this extraordinary mortality, he stated it to be their food, which consists chiefly of bread; and of which he calculated every adult peasant to eat two pounds a day, and he added, without any leading question from me, or in any way knowing my opinion on the subject, that if the peasantry of his country would substitute (which they could do) a small quantity of animal food with potatoes, instead of so much bread, they would live much longer and with much better health. I am inclined to pay much deference to M. Dutrochet's opinion, for he combines the regular medical education with great acute-

ness of mind; and I believe him to be as well acquainted with the general laws of organic life as any person living; and I think his opinion derives some support from the well-known fact that the duration of human life has been much greater in England during the last sixty years than in the preceding period of the same duration.

In the London *Agricultural Gazette* of the 24th of January last, is the report of the address delivered at a meeting of the farmer's club, by one of England's best farmers, Mr. Grey, of Dillston, in the county of Northumberland. He took a retrospective view of the progress that had been made in farming during the present century, and among other subjects, referred to the improved condition of farm laborers. "Since I recollect," said he, "it was hardly the case that the laboring population of the country were able to indulge themselves by eating butcher's meat at home. The father of a family thought himself well off if he could feed one or two pigs, and exceedingly well off if he could maintain a cow; but you now see the butcher's shop in every village, and the butcher's cart dispensing joints of meat at every cottage door as you go along the road. Such is the difference in the way of living;" and he adds, like a truly benevolent and sensible man, "I am sure you will all rejoice with me in thinking that it is so." But farm hands are not equally well cared for in all parts of England. Some of the southern counties, Wilts and Dorset, have long had notorious bad reputation for the low wages they pay their hired men. A Wiltshire parson, seeing there was so much difference in the statement of Mr. Grey and the actual state of things in his neighborhood, wrote to the *Times*, requesting information as to the wages paid the Northumberland workmen, which enabled them to live in such luxurious style. This elicited from Mr. Grey additional facts illustrating the influence of diet in the development of bodily vigor. He mentions a striking example of the inefficiency of southern laborers, whose low wages would oblige them to live chiefly of bread and the produce of their gardens. A relation of his, who had large sums to pay through his hands, superintending works of land improvement, was brought into communication with parties in the southern counties, who complained of want of employment and low wages among their pe-

santry; which led to his offering to find work for one hundred of them if they were sent to Northumberland with tools for draining, at which men were making from 17s to 21s per week at piece-work, according to capacity and application. A party of these men were provided with money for their journey and the purchase of tools, and on arriving at their destination, were lodged and set to work, but the poor fellows proved to be so wanting in method and in power, that few of them could make more than half the wages the men of the north country gained. With men so fed and children so reared, the race, as Mr. Grey remarks, "must be physically and mentally deteriorated." On the other hand, men well fed and strong, like the Northumberland workmen, "apply themselves to their work with vigor and energy; *they require the support of meat* as well as bread, and can afford to eat it." Like a well fed team, they feel well; go to their work with light hearts, contented and happy: conscious that their strength is equal to the labor required of them, and that the wages they receive will be a fair compensation for work done. Such men are the parents of robust and healthy children, who, sharing in their father's generous diet, without sharing, in their early years at least, in his arduous toil, grow up strong and healthy, and finally attain a stature and proportions rarely met with in districts where a low rate of wages and a consequently inferior diet prevails. We need not, therefore, be surprised to read further, a fact which vegetarians will do well to ponder over. "I have seen it stated that the regiment of Northumberland Militia require more standing ground than any other regiment, *because the men have broader shoulders.*" Hence the force and meaning of that proudly defiant taunt of Mrs. Barbauld, who, as a set off to more luxurious products of southern parts, says:

"But *men are ripened* in our northern sky."

Wisconsin Farmer.

Live so that when death comes you may embrace like friends, not encounter like enemies.

Reform those things in yourself that you blame in others.

Dairy Management in Scotland.

SIR JOHN SINCLAIR has stated that "it is supposed that the same quantity of herbage that would add 224 lbs. to the weight of an ox would produce 900 English gallons of milk." Now, if we reckon 6 oz. of butter to be the average weight obtained from a gallon of milk, we will get 337 lbs. of butter from the same quantity of herbage as was supposed to produce 224 lbs. of beef. If the hypothesis of Sir J. SINCLAIR be correct, there can be no doubt that it is the interest of the farmer to adopt the dairy system in preference to the feeding of cattle. But even granting that the difference between the production of beef and butter is not so great as stated by him, yet it is generally admitted that there is a considerable margin in favor of butter, particularly when we take into account the relative price of the two at the present time.

The importance of the subject being admitted, we may inquire shortly as to what kind of feeding is best adapted for producing the largest yield of butter. AITON, in his *Agriculture of Ayrshire*, published about the beginning of this century, tells us that the winter food of the dairy stock at that time was the straw of oats, or, toward the muirish parts of the country, the hay of bog meadow, frequently but ill preserved. "For a few weeks after they calved, they were allowed some weak corn and chaff, boiled, with infusions of hay; and by way of luxury, a morsel of rye-grass or lea-hay once every day; and of late years, by some farmers, a small quantity of turnips in the early part of the winter, and a few potatoes in the spring, have been added." The effect of such feeding on the animals is apparent when they are turned out on the grass in summer; "many of them are so dried up and emaciated that they appear like the ghosts of cows, their milk vessels are dried up, and it is not till they have been several weeks on the grass that they give either much milk or that of a rich quality." The summer feeding was generally pasture; and though a much better system of feeding has been practiced throughout the country since the introduction of turnip husbandry, yet an approximation to that described by Mr. AITON will be found in some of the upland districts.

Farmers have now, however, a great variety of food from which they can make a

selection; and the problem to be solved now is not how a sufficiency of one particular kind of food is to be gathered together to keep the cows in life for a considerable period of the year, but rather what variety of food, or, better, what mixture of varieties, how much, and in what state (raw or cooked), will prove most profitable for the production of butter. The mainstay of the dairy farmer now as formerly in summer is grass; in winter, however, there has been a great improvement in the feeding of the cows, from the use of turnips and other roots, as well as many other substances, such as beans, draff or distillers' and brewers' grains, linseed and rape cake, &c. Even now in summer, in some districts, it is found advisable and profitable, where butter is wanted more than milk, to give the cows some nourishing food, in addition to the pasture, at the very height of the season. Draff and bean meal are the two substances more generally used in such circumstances.

If the production of butter is to be the main object of keeping a dairy, there are two things to which the farmer should pay particular attention: the kind of cows he keeps, and the feeding. When we speak of the feeding, we mean not merely the quality of food the farmer purchases, but of what is grown on his farm. It is well known that the grass and turnips on some farms will produce far more butter from the same quantity of milk than those grown on others. We have known cattle fed on turnips alone from particular farms made fat in the same time as similar animals fed on turnips with the addition of two or three pounds of linseed cake each per day, the treatment and housing of the animals being alike in both cases. Certain fields will give a larger proportion of butter to the milk than others on the same farm. A farmer, therefore, should be guided, not only by the locality, but by the farm, in determining what department of the dairy he should turn his attention to.

Without referring at all, at present, to the kind of cow most profitable for a butter dairy, we pass on to a consideration of the kinds of food that may be used most profitably for the production of butter. The great authority on this subject is Mr. HORSFALL, who has laid the public under great obligations to himself for the publication of his experiments and views on this interesting question. His method of feeding is the following:

In May, his cows are turned out on rich pasture near the homestead. Toward evening they are housed for the night, when they are supplied with a mess of a steamed mixture, to be afterward described and a little hay each morning and evening. During June, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed. After this they receive steamed food *ad libitum* three times per day. After each meal, cabbages are given, from October till December; kohlrabi till February; and mangles till grass-time—the supply of each of these varieties of green food being limited to 30 or 35 lbs. per day for each cow. Four lbs. of meadow hay are also allowed after each meal, or 12 lbs. per day for each cow, and water is placed before them twice a day, of which they partake as much as they feel inclined for. The steamed food spoken of above consists of “5 lbs. of rape-cake, 2 lbs. of bran, for each cow, mixed with a sufficient quantity of bean-straw, oat-straw, and shells of oats, in equal proportions, to supply them three times a day with as much as they will eat. The whole of the materials are moistened and blended together, and, after being well steamed, are given to the animal in a warm state. The attendant is allowed 1 lb. to 1½ lbs. of bean-meal per cow, according to circumstances, which he is charged to give to each cow in proportion to the yield of milk, those in full milk getting 2 lbs. each per day, others but little; it is dry, and mixed with the steamed food on its being dealt out separately.” This is certainly high feeding, but it is amply repaid by the results; for, while cows fed in the ordinary way seldom produce milk which yields more than 1 oz. of butter to every quart, Mr. HORSFALL'S milk gives upward of 1½ oz. for every quart. It is also an important part of his system never to allow his cows to fall off in condition. He considers the maintenance of the condition essential to a large yield of milk. There can be no doubt of the soundness of this opinion. A cow low in condition cannot give the same quantity of milk, as much of the nourishment of the food is drawn off to make up the condition of the animal. And when a very lean cow is put on rich food, it is some weeks before the full benefit of the food can be obtained in milk, for the reason stated above. Another useful deduc-

tion made by Mr. HORSEFALL for his experiments is, that albuminous matter is the most essential element in the food of the milk cow, and that any deficiency in the supply of this will be attended with loss of condition, and a consequent diminution in the quality of the milk.

In Scotland, bran is not very often used as an ingredient in any mixture of food for milk cows; but it will be seen from the foregoing that it forms an important part of Mr. HORSEFALL'S mixture. Some time ago we came upon the following extract, we believe from the *Irish Farmers' Gazette*, which gives some valuable hints as to the use of different substances in the feeding of milk cows:

"In reading over the experiments on feeding in STEPHENS, a difference of opinion exists as to the comparative fattening qualities of linseed-cake, bean and other meal; and in the *Report of the Larne National Agricultural School for 1853*, 1 lb. of beans is said to be equal in fattening qualities to 30 lbs. of turnips, and nearly 3 lbs. of oat-meal. I tried the bean-meal one season, at the rate of 3 lbs. a day, boiled, for each milk cow, with mangel, turnip, and hay. By February, one of them was fat, but I may say dry; and the others with about half the quantity of milk they had when commencing. I tried oat-meal for two winters, the same quantity in the same way, and each cow gave three times the quantity of milk and butter, and turned out full better the following summer. I tried the same quantity of yellow Indian meal last winter, and I think it good for both milk and butter. I tried bran for three winters, at the rate of 4 lbs. every night for each cow. It was equal to the oat-meal, while using, and my cows turned out better the following summer than on any other feeding. The bran not only keeps them healthy, and gives them a greater relish for their food, but there is some combination of qualities in it beyond what any writer I have seen attributes to it."

The state in which the food is given has also a great effect in the production of both milk and butter. We have observed more than once that the yield of butter and milk is never so great when we give cows boiled turnips, with beans boiled quite soft among them, as when they get the boiled turnips and the same weight of beans made into

meal and mixed raw with them. Again, there is more milk, and no taste of the turnip in it, when the turnips are pulped and mixed with cut straw or chaff and fermented, than if the same weight of turnips are given whole and raw. In the *Journal d'Agriculture Pratique* we read a short notice on this subject, by M. LEJEUNE, a director of the Agricultural School at Thourout, in Belgium. The facts he reports are not to be regarded as experiments instituted to test any theory, but are merely extracted from his accounts, and show the importance of attending to the mode in which food is given to milk cows. In February, 1855, the milk of eight cows was selected for experiment. The cows were fed in the following manner: Each cow got per day 4.4 lbs. of meadow hay, 13.2 lbs. straw, 4.8 lbs. linseed-meal, 11.5 lbs. of beet-root, and a cooked mash consisting of 5.5 lbs. of turnips, 2.7 lbs. of beet-root, 1.2 lbs. linseed-meal, 3.2 lbs. of rape-cake, 1.1 lb. of grain dust, 1.1 lb. of mixed meal, about 1½ oz. of salt, and 6 gallons of water. From this very watery diet a large quantity of milk was obtained, 16 quarts of which gave 1 lb. of butter. In the month of February, 1856, the calculation was made from the milk of ten cows, eight of which were those with which the observations were made in the previous year. The nutritive value of the food detailed above was calculated to be equivalent to upward of 30 lbs. of good meadow hay per head. The food given in 1856 consisted of oat-straw, beet-root, the meal of rye, oats, and buckwheat, linseed-cake, rape-cake, and the dust of wheat or bran, given in such proportions as to make the equivalent value of the day's feed equal to a little more than 31 lbs. per head of hay. None of it was cooked, and the beet-root was reduced to small pieces sprinkled over the meal. There was not the same quantity of milk, but the proportion of butter was much larger, being 2 lbs. of butter for every 20 quarts of milk. The cows, with the exception of the food, were managed in the same way in both years, and there were more newly-calved cows in 1855 than in 1856.—*The Farmers' Notebook in the Journal of Agriculture.*

OLD RADISH SEED.—A correspondent of the *Prairie Farmer* says that radish seed that has been kept six years or more, will produce radishes of a better quality than new seed.

From the Working Farmer.

Experiments---Importance of.

Farmers often find fault with those who experiment. They say of a neighbor sometimes, "he is rather experimental;" but they should remember that every new truth is an experiment, to all those who have not tried it. Some one must be the first to vary from the trodden path, or we should still use a crooked stick instead of a plow. There is a class, however, who, upon hearing of any novelty in agriculture, at once try it, not on a square yard, but on their whole crop; such men are not worthy of being styled experimenters. But should a farmer, at this day, call himself practical and judicious in his calling, who, after having heard that in many sections of country corn is cultivated flat, without hilling, and that potatoes are so cultivated, still continues to hill both without trying the experiment of flat cultivation even on a single hill, can such a man be rated as judicious? Is such a man to be called a practical farmer? Is he practical, who allows Lima beans to travel around a pole fifteen feet high, when the pinching off of the vine at five and a half feet high will produce double the crop of beans, and particularly before frost? Should he not try the experiment and see how it will answer? Many permit mellons, cucumbers, etc., to run over the entire area of their soil, in long, single vines, while others, by pinching off the runner-buds, after the third rough leaf has formed, get their fruit early and of double size. Why should not this experiment be tried and adopted, if found true? Gooseberries mildew all over the country, but some have saved them by cutting every branch that is within five inches of another, and by mulching the surface with salt hay, or other cheap refuse material; is this not a fair experiment to try?

It has been frequently asserted, that properly under-drained sub-soiled lands never suffer from drought: who cannot name many farmers who lose their crops from drouth, at least once in ten years, and still have never experimented to know whether they can under-drain and sub-soil their land, for one-tenth the value of their crops, or whether such sub-soiling and under-draining will save them from drouth entirely? And those who doubt this fact, should they not make the experiment, or visit the farms of those who have, to know of its truth?

Thousands of acres of peach trees are grown by those who have never tried the shortening-in process, and can never tell whether they will bear for a series of years longer for such practice, or not. Is it not a fair experiment to try this on a single tree at least? Are there not thousands of farmers in the United States who have never tried any other fertilizing material than barn-yard ma-

nure? Should they not satisfy themselves by the experiment, whether or not others may not be more cheaply used, and produce more profitable results?

Continually we hear it said, that those who surface-plow five or six inches, have another farm under it which they have not developed. Should not such farmers experiment with the sub-soil plow to know if this be true or false? A bushel of carrots and a bushel of oats, are said to equal in effect, when fed to a horse, two bushels of oats. Now, as sixteen times the number of bushels of carrots can be raised on an acre, than can possibly be grown of oats, should not those farmers, who have never raised carrots, try the experiment; and thus ascertain if these assertions are true? Those who use hoes, and forks, etc., for cleansing row crops of weeds, have heard that the horse weeder would do the work of forty men with hoes, and that many have repudiated the use of the hoe altogether for root crops, why should they not try this experiment? It is said that one mowing machine will do the work of twenty men with scythes, and that one thrashing machine will do the work of a hundred men with flails; should not those who at present use flails, visit farms where mowing machines and thrashing machines are used, to ascertain if that experiment will not warrant them in the purchase of such tools?

Those who use barn-yards open and exposed to the winds and rains, and who permit the washings to run off to creeks and streams, have doubtless heard that with manure sheds, and properly arranged tanks retaining the drainage of the manure heap, and pumps, obtain better results than by the open barn-yard practice; should they not carefully review the operations of these experimenters, rather than satyriize that of which they have no knowledge? Experience is said to be the mother of wisdom—experiment is the father of truth.

KIDNEY-WORMS IN SWINE.—The *German-town Telegraph* says, this disease may generally be known by the animal appearing weak across the loins, and sometimes by a weakness in one or both hind legs. As soon as these symptoms appear, give the animal corn that is soaked in lye of wood ashes, or strong soap-suds, and at the same time rub the loins with turpentine. An Ohio farmer cures this disease by giving one ounce of copperas, daily, for six or eight days, dissolved in warm water, and mixed with two quarts of corn meal and dish-water.

HEAVES IN HORSES.—It is said, in a recent number of an agricultural paper, that a quart of a decoction of smart-weed, given every day to a heavy horse, will cure the heaves. We doubt it; but there is no harm in trying.

For the Southern Planter.

Advice to Young Farmers.

I long ha'e thought my youthfu' friends
A something to have sent you,
Tho' it should serve na'e other end
Than just a kind memento:
But how the subject theme may gang
Let time and chance determine,
Perhaps it may turn out a sang,
Perhaps turn out a sermon.

'Tis the most difficult thing attempted,
Mr. Editor, in these days of book-making
and essay-writing, to say anything which
will be read, and read with interest, or profit
by the reader.

There seems to be a perfect mania pervading the people now-a-days for seeing themselves in print, and not satisfied with seeing themselves in the periodicals of the day, each one must write a book. The result is, that having to search so much chaff for a grain of wheat, men will not read at all, or if they do, it is of that sort which profiteth not. "Hence these tears," hence proceed our difficulties. One can never be certain he has any thing to say that will attract, or satisfied that he has said "that any thing" concisely enough!

To have an interesting subject, and to treat that subject as forcibly as is consistent with perspicuity, seems to be the grand desideratum of the times. Brevity then shall rule in the suggestions I have to make to our young farmer friends.

Leisure has been wanting hitherto, but for some time I have been intending to address an article, or it may be, a series of articles to this class of our community, which they might, if the papers proved worthy of it, take as a sort of "*vade mecum*," or pocket companion, and we know not a better medium through which to speak to them than your excellent "*Planter*." As the new year is about to commence, we had quite as well begin now and do what we may for the advancement of the interest upon which depends the lawyers, the doctors, the merchants, and all the interests of the land in which we live.

And first of the government needful to be exercised in the *successful* conduct of a farm.

In speaking of this branch of our subject, we suppose ourselves to be addressing neither "old fogies" nor "Young Ameri-

ca"—neither those who are satisfied to do a thing because their "Faders did so before them," nor those who imagine they have learned all that can be learned. Let our young friends read, remembering that the distinguished Patrick Henry once said, that "he had never conversed with a sane man from whom he could not extort a new idea."

The young farmer must, in his "set out," be assured that he is qualified to govern himself. No man can govern others, who has never learned to govern himself. If he has failed to learn—this—*emphatically—the art of the farmer's life*—he had better hire out and rent out, and go to school to learn it. Better put himself on board a man-of-war and learn how to obey, or in other words, bring his will into subjection—learn to keep all his passions under. Let him ponder the proverb, "Better is he that ruleth his spirit than he that taketh a city." Unless our young brother has learned this—*the art*—we can tell him on the threshold of his operations, that his business will be conducted with a great outlay of time and money, and wear and tear of health and comfort. Let him first, himself, learn what obedience is, and then, and not till then, is he qualified to command it. We know, from long experience, that this is indispensable to good management, hence we dwell upon it!

The young farmer should be careful that the order he issues is reasonable—that it is given in such manner as may not be misunderstood, but when that order is given—although in itself of minor importance, its execution should be as inexorably fulfilled as if the fall or rise of his whole estate depended on that order. If an order of this kind be neglected, those of great importance will be neglected also. Our friend will be surprised to see with how little trouble—with what comfort to himself and to those under him, his business will be conducted if this rule is *rigidly* adhered to. Let the order be a reasonable one, but let the want of obedience to it be punished, though the "Heavens fall."

A very sensible old lady used to say, "I make it a rule to whip my children and servants for—*accidents*?" The consequence is, that accidents rarely happen at my house." She thought, it should rather be written carelessness!

The good managers will see to it, however, that these corrections are administered

calmly, dispassionately. They must govern themselves. Obedience—prompt and implicit obedience—to orders, covers almost all the ground of a well disciplined household! The knowledge of the laborer, of the fact, that no disobedience, or those things called accidents, will be allowed to go unwhipt of justice, will not only be insurance against these things occurring, but will, after a few years observance of the rule, render the laborer habitually careful, and promptly obedient, and bring along with it its own reward to the governor and the governed—all goes on pleasantly, and with a harmony that is perfectly delightful.

The judicious manager will never tempt those under him to depart from the truth, by asking questions of them as to the execution of orders. He should be especially careful, in this regard, as to the youngers of the family. If he sees that mischief has been done,—orders disobeyed, thefts committed, or anything wrong, he should never accuse them, indiscriminately, of having committed the wrong, but he should cultivate and foster the truth by every means in his power. There is a great deal of force in that saying of Jerry Sullivan's, who, when questioned by his master as to some of his duties—always said to him, "Ask me na' questions and I'll tell ye na' lies." When, however, by strict investigation the defaulter is found out, let the falsehood be punished as relentlessly, or more so, than disobedience, or anything else pertaining to the household delinquencies, and in a short time he will perceive that, contrary to the received theory, his servants will be as truthful and free from pilfering as white persons can be. Ask no questions, however, and make no accusations, that you are not fully prepared to prove. We are not told whether Abraham whipped his household for disobedience, or for accidents—but we do know that he was called "the friend of God" because he "*governed* his household."

FARM HOUSES,

From stable to dwelling inclusive, are most important adjuncts to the farmer's establishment, and should not be passed over in these suggestions. If we were called upon to select any one thing, to the exclusion of all others, for the improvement of a farm, it would be the arrangement of the dwelling and grounds immediately surrounding. A man may have improved his grounds at

large to the capacity of fifty bushels to the acre—he may have the fat cattle "upon a thousand hills"—he may have everything else apparently thrifty about him, but if he lives in one of those long, tall, narrow, disproportioned wooden, or brick buildings, such as our fathers, some of them, thought were the ultimatum of architectural proportions and beauty, and which their children have been imitating ever since for the forcible reason, that "their Fathers did so before them"—if a man lives in such a house, with a crooked rail fence around a yard without grass, without trees, without shrubbery of any kind, and without a neatly inclosed garden, well tilled and manured—we speak the sentiments of the sensible and refined every where, when we say, that farmer friend of ours knows but little of the real enjoyment of life, and but little of the fact that, so far as the increased value of his "place" is considered, he is literally spending his labor in vain. A neat, tasteful arrangement of houses and enclosures about the dwelling, are, nine times in ten, the things which render the farm valuable in the sight of those whose high estimation of such property we desire. These are the things, the others being not altogether neglected, by which the *farmer's* estate is increased greatly over that of the man who labors exclusively for the money he puts into his pocket each year.

If our young friend has his farm already supplied with buildings of this kind, when he takes possession, the best that he can do for bettering his condition and renovating them, after counting his means, should be to pay an architect, if he himself should not have the skill, a hundred or more dollars, according to the service rendered, to plan such improvements as shall be commensurate with his means. These architects are generally men of acknowledged taste and judgment; and being, as they are, daily engaged in business of this kind, they are far better fitted for the work than those of us who build but once in a lifetime, and who see the errors we make only too late to correct them. This hundred or more dollars will soon come back to them, in comfort and convenience, and if they should want to sell, in the increased value of their farm.

The kitchen should be near to, but not so near the dwelling as to endanger their burning each other. It should be furnished with all the improved apparatus for cooking.

A young cook, not an old one, should take the position. The old ones are all "old fogies," and can never be taught to cook with a fire anything short of that which will roast them while it roasts the meats. An old cook can never be taught the neat, tidy ways which may be practiced, with but little trouble, under the modern system of stoves and boilers, and galvanized safes, &c., &c. The kitchen should be sacred ground to every foot but that of the cook and mistress. 'Tis said, that "every man must eat his peck of dirt," but we are sure, from the amount of filth that is suffered to accumulate about most kitchens, that we eat that amount annually. Cleanliness is more needed about that department than any other on the premises of a well regulated homestead. This cannot be attained if any other than the cook is suffered to set foot there, and that, not for sleeping, or sitting, but exclusively for culinary purposes.

The negro cabins should be built on a southern slope, as near as possible to wood and water, but especially the latter. The neatest and most eligible, and at the same time the cheapest, that we have seen, are those built after the following manner. Sills, 36 by 16, should be framed together, so that after leaving 4 feet for a double rock or brick chimney, the rooms may be 16 by 14. Corner posts may be used or not, according to the pleasure of the builder. The house being only 7 or 8 feet pitch, the weatherboarding of perpendicular plank 1 inch thick, with breakers of the same thickness 4 inches wide, nailed at the top to a plate 2 inches thick by 4 wide, will be ample support to the roof, which should be flat as possible, to turn the water readily. The weatherboarding, with these strips or breakers, should be nailed carefully to the sills at bottom, and the plates at top, with 12 penny nails, and the weatherboarding should, none of it, be more than 10 to 12 inches wide, as wider than that the sun will be apt to warp and draw the nails loose. "As paint," 'tis said, "costs nothing," we would advise that the weatherboarding be rough-dressed and painted, both of which operations may be performed by such a hand as can be obtained for \$16 or \$18 per month. Each room should be ventilated by an opening of 4 by 4, filled with small glass, with strips nailed over it, to keep the unwary from breaking it. These houses will cost from \$75 to \$100. If they should

be found too cold, it may be remedied by nailing four or five dollars worth of course oznaburghs over the inner wall and painting it. These houses will last a lifetime, with once covering. They are entirely substantial and permanent. The houses of western Texas, are, most of them, constructed after this plan, and are considered as permanent as any, and we all know the terrible hurricanes they are subjected to in those southern climates. These cabins should be raised a foot or more from the ground, in order that the filth generated about the houses may be carefully got up once or twice a year. Every family of negroes should have a little enclosure around their cabin, which they should be diligently encouraged to cultivate and manure. They should be required to do this as regularly as to do the work of the master. It will greatly conduce to make them orderly and careful, and followed up with the master's watchful attention for a series of years, it will profit both master and man far more than on the first blush will appear.

There is an old adage, to the effect, "Keep a thing seven years, and if you have no use for it then, throw it away." This adage the negroes pursue most literally, as it regards their old shoes, old coats, old pants, shirts, and everything belonging to their dress; all these are thoroughly worn and soiled, and then thrust into the loft—into "chists," as they call them—boxes, barrels, or corners of their rooms—where they will lie until they become almost a putrid mass, to generate disease of every character. The most cleanly of them will do this, to the detriment of health and comfort, and the enlargement of the master's doctor's bill. The judicious master will go around, once or twice a year, and have all these things committed to the fire, and will, once a year, use a *barrel of lime and a white-wash brush*, costing in all \$2, upon the inside, and thus save the visits of the doctor and the health of his negroes.

STABLES, COW HOUSES, &C.

These should be most carefully located, on as level a surface as possible. A never-failing stream of pure water, either in the manger of the horse, or in the stable-yard, is indispensable. The good manager will have had reference to this in the location of his dwelling. Whether this arrangement has been made or not beforehand, when the

stable or cow houses come to be built, such a location should be sought for them as will insure to the stock an abundance of the best of this indispensable requisite to their good keeping. Unless they be placed where they can help themselves to good clean water, you may in vain expect to have a team in good condition. Negroes and overseers cannot be made to understand these things. Hence, interest, as well as the convenience of the master, demands that water be placed in connection with the stables.

The construction of these buildings are of great moment. They may be so constructed as to be a great convenience, and on the other hand so built as to be a continual annoyance. We give our experience in this kind of building—as we speak experimentally chiefly—in all these things which we are now writing for our young brethren. Supposing we were going to provide stabling for from six to ten horses—we would have the dimensions 32 by 33 feet from out to out—this would afford 10 stables 12 feet long and 5 feet wide in the clear, the horses being arranged with their heads on each side of a plank floor passage 6 feet wide, in which their chop is cut and mixed, and transferred directly to their troughs without the trouble of going out of the stable. In this passage, also, may be placed boxes for holding meal, or barrels for soaking grain, not one bushel of which should be fed without either grinding or soaking. But to the building—we would have locust posts set in the ground (and white oak, if locust could not be procured,) $2\frac{1}{2}$ to 3 feet deep, 8 feet pitch, with a plate on top of them 6 by 8 inches, upon which the roof rests. These posts should be 8 feet apart, and consequently, there being 4 rows of them, the number thus set into the ground will be 20. Besides the stables below, this roof will afford a large and commodious receptacle for storing such provender as the master may wish to cut for mixing with meal for his stock. The sides should be watherboarded perpendicularly with inch plank 10 to 12 inches in width, precisely in the way indicated in building negro cabins—with the addition of studding put into the posts horizontally, so that the plank will come FLUSH on the posts—and so that it can be nailed every two feet of its length. If this watherboarding were rough-dressed, and, as “paint costs nothing,” if it were painted, it would be far better! All these things would

be rendered better still by the master's having a good halter chain *permanently* attached to each stable, and requiring that no horse should be put into them without being fastened by them. If “what is worth doing at all, is worth doing well,” then attention to these things is decided economy. We hope our young brother will take a smoke at this stage of our lecture, and wait with patience for what we have to say further to him in the next number of our excellent farmer's book. L. M.

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For the Southern Planter.

Capital and Enterprise---the Bases of Agricultural Progress.

FROM THE FARMERS' CLUB OF NOTTOWAY.

We use the word capital to embrace every thing from the legitimate use of which, the individual so using it, may reasonably calculate on receiving a remunerating return in revenue or interest on the amount vested; and the word enterprise to express whatever constitutes good husbandry.

The capital invested in agriculture, in our community, may be divided into lands, labour and money. The relative proportion of these three elements, in a judicious investment, is, probably, one of the most difficult problems which the agriculturist has to solve, and in the practical adjustment of which, it is believed many errors are committed. With a majority of farmers, the error consists in too large investments in lands; arising heretofore, from the low estimate placed on them, in the exhausted condition in which they were left to us by our predecessors, their remoteness from markets, the ease and cheapness with which they were acquired, and the avaricious propensity of our nature to “add field to field, and house to house, more from a desire to occupy, than an ability to use them.

The relative proportion of real, personal and chattel estate, varies materially in different countries, and even in the same community. In England, where calculation and skill have attained to nearly a perfect standard, it is considered, the capital employed, (in which is always included the stock), should be from seven to nine times the amount of the rents. This would appear to be a great disproportion, even in view of the fact that lands are high and labor cheap; but the cost of stocking the

farm, draining the lands, the purchase of costly fertilizers and other incidental expenses, consequent on a high state of agricultural improvement is very great; and that, probably a large amount of the English farmer's profits are derived from the sale of stock, &c., rather than from the great staple crops of the farm, may justify this investment.

In Virginia, where every farmer has a fee simple estate in the lands which he cultivates, and that too with his own labor, where lands are cheap and labor dear, a vast disproportion in the relative investments exists, and the difference is found adverse to the English rule. From the best information I have been enabled to obtain on the subject, it will be found that there is but little difference between the investments in land, and all other taxable property, held by the Virginia farmers; nearly one half of his capital being locked up in land, while the English farmer has six eighths or eight ninths of his capital at his own disposal, for stocking and improving his farm, or for speculation and other profitable investments.

Labor is an important item under the head of capital. Without the application of labor to our lands, they would be valueless, it is the judicious use of labor that renders them productive and valuable. The earth spontaneously produces but few of the necessities and still fewer of the luxuries of life; and it is wisely ordained, that "man in the sweat of his face shall eat bread till he return to the ground." Now, as of old, the wheat and the tares grow together; the thistle and the corn occupy the same space whether on the hill top or in the valley; and the vine and the bramble everywhere contend for the mastery; all making heavy and constant demands on the labor and energy of man, to subdue and cultivate the earth. If the sentiment be true, as it has been beautifully expressed, that "the price of liberty is eternal vigilance," it is no less true, that the price of agricultural success, is ceaseless, untiring, well-directed labor.

We do not propose to discuss the mooted question, as to the relative value of free and slave labor; with the one we have no experience; with the other, we are familiar, and can duly testify to its adaptation to our wants, and appreciate its advantages, socially and politically. In agricultural pursuits, it is admitted much depends on the quality of the labor employed; still more on the

quantity and skill by which it is directed, for it cannot have escaped the notice of the most superficial observer, that the same number of laborers of equal physical ability will accomplish much more work in a given time, under the supervision of a judicious manager, than when directed by one inexperienced or indifferent to the means and appliances by which the labor may be performed in the best manner and at the least expense of muscle and sinew.

The present unprecedented high price of labor, is, perhaps, one of the principal hindrances to agricultural progress, and is a subject demanding the attention of political economists. In populous communities, where farming is the principal pursuit, there is generally a just relation between the price of land, labor and produce; nor can this relation be long disturbed from any cause, whatever, without producing monetary derangement and general embarrassment. The connection between the three and their mutual dependance is so great, the one on the other, that one cannot suffer without injuriously affecting the whole.

The high price of labor in this community, is due to several causes, some of them favorable, some unfavorable to our local and individual interests. Since the construction of our railroads, the price of lands has advanced from thirty to fifty per cent., during the same period the price of labor has advanced one hundred and fifty per cent. and the price of our staple crops, although above an average price, (and would be considered amply remunerating under the old order of things), has not advanced in the same ratio with land and labor; especially when you add to the actual cost of that labor the further incidental charges of costly fertilizers, dear provisions and high taxes. Hence the farmer, in this section, cannot judiciously increase his labor as his necessities demand; because his net profits from that labor do not justify the investment and cover the risk of loss from death and other casualties. Again, the price of labor is not regulated by the returns of that labor as applied or employed on the worn out and exhausted fields of Eastern Virginia, but by the higher and more remunerating returns of labor in the rich alluvial valleys of the South and Southwest, and in the more valuable staple crops of cotton, sugar and rice.

Another cause of the high price of labor, is due to the increase of the precious metals

and an abundant circulation. This also acts unfavorably and unequally on us; we are not so much benefitted by this increase of the circulating medium as our more favorably situated neighbors of the south, because their fertile lands and valuable staples enable them to derive a revenue from their labor greater than any thing we can calculate on; hence we cannot compete with them in the use and application of that labor, and are driven, by force of circumstances, out of the market; for as sure as water seeks its level, so certainty will labor seek its best returns, and money its highest profits.

Another cause of the high price of labor, is the heavy emigration of our citizens to the South. This restless spirit of our people has been very unfavorable to the prosperity and progress of the Old Dominion, by abstracting a large per centage of our white population and a larger number of our best laborers; by increasing the price of those remaining; and at the same time throwing large quantities of land into market; in a community where labor is dear and land cheap, and population sparse; where numbers, capital and enterprise are so much wanted to develop the boundless resources of national wealth so profusely lavished on Virginia by nature.

From the records of our office, the increase of the white male population in the county, over sixteen, during the last decade, amounts to only sixteen, (to say nothing of females of which the returns give no account,) and the increase of tithes and under tithes, for the same period to only five hundred and eight, making, in the aggregate, only five hundred and twenty-four.

In 1848, the tax on all property, other than lands, amounted to nineteen hundred and sixty-six dollars and eighty-four cents. For the same year, to wit, 1848, the tax on land amounted to twelve hundred and forty-nine dollars and thirty-seven cents.

In 1858, tax on all property other than land amounted to \$8,946, and the land tax amounted the same year to \$7,639 dollars; amounting in the aggregate to \$16,585. Thus we see, that during the last ten years our population is only a little more than stationary, that during that period, taxation has increased between six and seven hundred per cent., and that we have not two dollars for one, vested in all other species of

property over and above that which is vested in land.

This small increase in population for the last ten years, a period exempt from the horrors of war, pestilence and famine, and under other circumstances highly favorable to rearing and sustaining a dense population, can only be accounted for by the volunteer emigration of the white population and the deportation of the slaves.

Another cause of the advance in labour, is the employment of a large number of slaves on our rail-roads and other internal improvements and the mechanical trades. This is impolitic; they could in a majority of instances be more profitably employed on the farm; besides they are occupying situations more appropriately belonging to that class of citizens who are dependant on their labour for theirs and their family's support; thus compelling them to seek employment in other communities.

Experience, it may be said, is the basis of good husbandry; but that man will be most likely to succeed in his vocation, whatever it may be, whose mind is well stored with the kindred and necessary sciences, by which he will be enabled, from the deductions of reason, to arrive at correct conclusions, and who possesses the energy of body and mind to execute what his judgment assures him is right; he will adopt the best means to attain his object, and apply them in the most economical way.

We would, in the first place, recommend a judicious division and investment of the capital employed: believing that too large a portion thereof is vested in land, and is idle and unproductive, whereby the farmer is crippled in his operations. The surface cultivated is disproportionate to the labour employed, which necessarily leads to a hurried, slovenly cultivation, the bane of good husbandry, having respect to the quantity rather than quality of work done. We would suggest the propriety of reducing the area of our fields, extending our rotation, the liberal cultivation of clover and other grasses and ameliorating crops, by which our stock will be improved in quality and increased in number, and be made auxiliaries in the improvement of our lands.

We have no means to suggest by which the number of our labourers may be increased, and labour cheapened; but they may be rendered more efficient, by a more systematic application of their labour in all

our operations, and by the substitution of machinery and animal labour when applicable. Every farmer should be a good financier and practical economist, husbanding all his resources and personally directing the operations of his farm. This implies a practical if not scientific knowledge of his business, without which he is ever liable to imposition. How can he without this knowledge ascertain whether a sufficient amount of work has been performed, or whether it has been faithfully executed? It is by personal effort, directed by scientific knowledge, that the greatest achievements have been made in all the industrial pursuits of man, and agriculture is no exception to the rule. Here we would advocate the establishment of agricultural schools, colleges, societies and clubs, as the best means of enlisting the united effort and influence of practical and scientific men in the advancement of our cause, for without concert of action no great progress can be expected in this or any other human enterprise.

Fertile lands and valuable money staples are the inducements to emigration and deportation; to counteract these tendencies we must increase the productiveness of our lands, and improve the quality of our staples; give employment to our floating population, so as to keep them at home, and more thoroughly identify them in their feelings, associations, and interests, with the land and home of their fathers. Our object should be to retain our present number, and, for the future, to guard as much as possible against the operation of these causes which have favoured emigration.

The letter of our constitution ignores whatever savors of politics; we can no more than allude to the African slave trade. The introduction of the Chinese coolies, if practicable, would be impolitic. The introduction of a third order would be injurious, if not hazardous, to our domestic institutions, and we have seen nothing but evil resulting from the employment of the lower order of European labourers on our farms, and associating with our slaves. Virginia must be her own nursery; she can and will annually send forth labourers into her harvest fields, equal to her greatest necessities, in defiance of Northern abolitionists and underground rail-roads.

A. A. CAMPBELL.

For the Southern Planter.

On Tobacco Culture.

FROM THE FARMERS' CLUB OF NOTTOWAY.

In discharge of my annual obligation, I propose to discuss a question which has engaged my consideration for some years. *Viz: How is it that so many persons, with the same or inferior facilities, have made so much more tobacco than myself?* After due allowance for deficiency in judgment, management and attention, there remained much which defied solution. I was inclined to ascribe it somewhat to a degree of hard-driving, barbarity, &c., which I did not desire to know. But there were persons similarly successful, whose judgment, humanity and propriety precluded such a belief, and induced the conclusion that some skill and management not formerly exerted were auxiliary to such results.

I heard a gentleman possessing the above attributes, with thankfulness, piety, &c., declare that he did not believe his hands worked any harder in making his increased crops, than they did to produce his previously deficient ones, and any new systems or aids become objects of interesting consideration, which I propose to discuss, not so much from my own experience, as from the materials I have collected from others. It must be admitted in the commencement, that a proper use of guano and other fertilizers for tobacco is the chief foundation of this increase, commencing even in the plant beds. Formerly we were restricted to the land; we would clear our second year's ground, and what we could manure from farm yards not exceeding 40,000 to 50,000 hills per each department, or 120 to 150,000, per 15 to 20 hands, leaving a small space for wheat, except by using the entire corn shift.

According to the present plan of using the old land with fertilizers you can prepare in hills or beds with the plow for 200,000 tobacco plants more easily than you could clear the 40,000 new ground hills and make them up. Here, with the increased quantity and forwardness of the plants, you have a wonderfully increased facility in the commencement. The difficulty has generally been in the worming and suckering. I don't see well how the impediment of suckering can be much diminished, except in a way I would not de-

sire to imitate. But in the worming skill and system may afford assistance.

Formerly it was the practice in worming to turn over and examine each leaf, whether there were indications of injury or not, which required so much time and delay as to expose the latter portion of the crop to very great depredation. It is said that by passing over the crop, only noticing the evidences of the worm, you can get over the crop so much more frequently as to place a larger surface under much better control.

In the housing of a large crop to the hands, there must necessarily be much labour and attention, employing a portion of the night. The number and convenience of barns, afford assistance here. In the curing of the crop, I believe much labour can be saved, as the use of fires can be dispensed with to some extent, except when likely to injure. In the stripping of the crop, a good, comfortable room with a stove and glass windows convenient to dwellings is particularly useful, especially in bad weather.

In the hanging up and striking down of the crop, small sticks, not much larger than the little finger, two and a half feet long, and hung up in the direction of the tier-poles, on two of the usual sticks across the poles, are very useful. When the bundles have been straightened and pressed hard, they can be hung up by passing these little sticks under the head without opening the leaves, which is otherwise very tedious; and in striking down, these little sticks need not be removed during that operation, at least when expedition is important to secure the order.

As another facility, it is important that the hands should be well fed and clothed, and their food prepared for them without interruption, and the increased crop justifies and affords the observance, apart from humanity and interest, for there can be no greater extravagance and wastefulness than a restriction in the food and clothing essential to the performance of proper service.

In the prizing of a large crop of tobacco, a screw would no doubt justify its cost, and afford a facility. It cannot be doubted that the convenience of rail-roads in conveying off our crops, rather than the former plan of injuring the plantation teams in that operation, may be enumerated in the elements of increased products.

It may be also observed, that this largely increased surface in tobacco is sufficient for a respectable wheat crop, without the use of corn land, which, devoted to oats, allows a diminution of the surface for corn, and leaves more labour for tobacco.

The use of oil in the preparation of the tobacco crop, is of somewhat modern origin. Some doubted the propriety of thus imparting a fictitious appearance of richness, until it was said to be recommended by the tobacco buyers themselves. I have never used it but once to the extent of keeping the hands sleek, instead of gummed up while handling it,—and it is thus certainly useful.

My object has been to point out and propose for discussion these modern improvements in the production of this crop, the increase of which may have been erroneously to some extent, ascribed to over-working of the hands employed. There can be no doubt that if this increased product should be the means of increased comfort to the labourers, as both interest and humanity should prompt, it may prove a development of the resources of our country, enhancing to its value, and promotive of other beneficial consequences.

E. G. BOOTH.

The Use of Quails.

Wm. Norton, an intelligent, observing farmer boy, who makes his home in the southern part of Illinois, has recently been studying the habits of the quail, or, incorrectly "partridge," and gives the following testimony to the Cincinnati Artisan:

"He observed a small flock commencing at one side of the field, taking about five rows, following them regularly through the field, scratching and picking about every hill, till they came to the other side of the field; then taking another five rows on their return, thus continuing, till he thought they were certainly pulling up the corn. He shot one, and then proceeded to examine the corn ground. On all the ground that they had been over, he found but one stalk of corn disturbed; that was scratched nearly out of the ground, but the kernel was still attached to the stalk. In the craw of the quail he found but one cut worm, 21 striped vine bugs, 100 chinch bugs, that still retained their individuality, a mass apparently consisting of hundreds of chinch bugs, but not one kernel of corn.

VIRGINIA STATE AGRICULTURAL SOCIETY.

The eighth annual meeting of the Virginia State Agricultural Society, was held at Temperance Hall, in the City of Petersburg, on Tuesday evening, the 1st of November, 1859.

The President, Edmund Ruffin, Esq., called the meeting to order, when the annual address "on the Rise, Progress, Present Condition and Future Prospects of the Society," was delivered,

BY THE HON. WILLOUGHBY NEWTON.

Mr. President and Gentlemen:

Nothing but an imperious sense of duty could constrain me to appear before you this evening.

The Executive Committee having failed, after repeated efforts, to obtain a speaker for the occasion, have, at the eleventh hour, pressed me into the service.

I am required to perform the delicate and responsible task of addressing this large and enlightened audience with such hurried and imperfect preparation as could be made, in the short intervals of leisure which a practical farmer may command in the midst of seed time, with all its engrossing cares.

Respect for myself, as well as for you, would compel me to decline this call, however urgent, if I could do so with propriety. But when I remember how intimately I have been connected with the Society, from the first moment of its existence; that I presided with the anxiety of a parent at its birth, and have watched with the deepest solicitude its progress to the present day; when I reflect that, though, from my local position, it has been in my power to render very little service, I have yet been constantly honored with one of its chief offices, and am justly responsible, with my colleagues, for the administration of its affairs, I feel that the task, however onerous, cannot be declined. For, if I, upon whom it has so many claims, should, in this hour of its extremity, falter in its support, who could be expected to stand forth as its champion and defender?

Impressed with the belief that this is a crisis in the fortunes of the Agricultural Society of Virginia, I shall not, as is usual on such occasions, occupy your attention with a dissertation on practical or scientific agriculture, or with speculations on any of those political or philosophical questions, which may be regarded as intimately connected

with the interests of our profession. However important and interesting such themes, the period requires the consideration of other subjects of more urgent and vital concern.

The occasion naturally invites us to review the history of the Society, including its rise and progress, present condition and future prospects.

In mariner's phrase, we should "take an observation," and endeavor to ascertain whether we have departed from our true course, and what storms and shoals and breakers now threaten the successful prosecution of the voyage of our noble ship.

I hope to be pardoned by our friends of the Union Society, for speaking on a subject in which they may seem to have no peculiar interest, for I flatter myself that even those among them who are citizens of a sister State are not indifferent to whatever concerns the welfare of Virginia. And I know full well, that those who owe allegiance to our good old Commonwealth, are keenly alive to the interests of that noble institution, which has not only greatly advanced the material prosperity of her people, but has reflected on the State the highest honor and renown.

The events to be passed in review are too recent to form the subject of impartial history, and delicacy would forbid the detail of transactions, many of the principal actors in which are still living, and here present, if it were not necessary, in order to remove misconceptions and prejudices, which not only greatly impair the usefulness of the Society, but which, if permitted to continue and increase, may be fatal to its very existence.

In the remarks which I shall make, I shall avoid, as far as may be consistent with a proper defence of the Society, all those points of controversy in which there has been division in our councils, and shall endeavor to do ample justice to the disinterested zeal of the noble spirits who have contributed, by their efforts, to the success of this glorious enterprise. And I shall be particularly careful not to imitate the example of some military leaders, who, having by their united efforts achieved a splendid victory, disgrace the arms of their country by an ungenerous contest among themselves for preeminence in skill or valor in the battle.

The Virginia State Agricultural Society is now in the eighth year of its existence,

and the history of similar institutions, throughout the world, presents no instance of a success at once so rapid, complete and brilliant. Its true history is almost as marvellous as an Eastern tale.

On the dark and gloomy night of the 19th of February, 1852, there assembled in the hall of the House of Delegates, in the capital of Virginia, a small body of zealous and enlightened farmers, to make a last effort to form a State Agricultural Society.

The humble individual now before you had the honor, by previous invitation, to address that enlightened and patriotic assembly. In the course of his address, which will be found in the first volume of the transactions of the Society, he urged such arguments as occurred to him in favor of its establishment, and foreshadowed its character in the following words:

"The society which we propose to establish, is to be as broad and comprehensive as the Commonwealth itself. Every section and interest of the State will here be represented. The grower of wheat, on the banks of the Potomac, will here meet the planter of tobacco from the distant Roanoke; and the tiller of corn, who greets the first beams of the morning sun from the golden waves of the Atlantic, will hail his brother, who catches its parting ray as it is reflected from the glassy bosom of the beautiful Ohio."

The meeting entered fully into the spirit of the speaker, and the convention, numbering only seventy on the first day, continued its sessions from day to day until the society was organized, the principles of its constitution settled, and its Executive Officers elected. The venerable man who now presides over the society, and who, for so many years, has devoted his talents and learning and energy to the service of the farmers of Virginia, was elected, by acclamation, its first President. He entered at once upon the active discharge of his duties, and has continued to devote himself to the service of the society with a laborious industry, an ardent, enlightened and disinterested zeal which has no parallel, except in the devoted service to British agriculture, of his great prototype Sir John Sinclair. I have no record of the names of the gentlemen who participated in this first meeting, all of whom are entitled to honorable mention.

Of those who took an active part in its proceedings my memory recalls the names of

Randolph, Minor, Noland, Gilmer and Frank G. Ruffin, of Albemarle; Seddon, Morson, and Sampson, of Goochland; Booth and Irby, of Nottoway; Peyton, Richardson and our worthy Secretary of the city of Richmond; Morriss, of Amherst; Dew and Boulware, of King and Queen; Grattan, of Rockingham; Nelson, Ruffin and Brockenbrough, of Hanover. As a part of the history of the times I think it highly desirable that the names of all the members of this convention should be preserved in the archives of the society, and I trust it will be in the power of the Secretary to procure a record of them.

Few in numbers and with very inadequate means, the society proceeded in a hopeful spirit, to fulfil its mission, which was declared, in its constitution, to be "to improve and advance the condition of agriculture, horticulture, and the auxiliary mechanic arts." The Executive Committee met from time to time, and were diligently employed in collecting information for publication in the transactions, and in doing all, within their power, to secure the permanency, and usefulness of the society.

In the course of a short time they had prepared and reported a constitution for the society, remarkable for its clearness and comprehensive brevity; and a scheme of premiums which has been the basis of all our Fairs. A large amount of valuable matter had been contributed, chiefly by the President himself, to our annals, and on the 16th day of December, the society again assembled in general meeting, at the Capitol. Interesting and instructive addresses were delivered by the President, and Mr. F. G. Ruffin.

The members had in this time increased to 339, and the funds in the treasurer's hands amounted only to \$268.00. The President, admonished, as he supposed by declining health, and approaching infirmity, resolved, to the great regret of the Society, to resign his office, and was chosen first Vice President. Philip St. George Cocke, Esq., was unanimously elected President.—In the prime of manhood, with a princely fortune and a large heart, which makes wealth a blessing, by the generous liberality with which it is dispensed for noble objects, he was just the man for the crisis.

He entered upon the discharge of the duties of his office with ardent and enlightened zeal, and in a neat and highly appro-

priate address on taking the chair for the first time, in the meeting of the Society on the 10th day of March, 1853, pledged his best efforts to the cause.

This pledge was most faithfully redeemed, by the devotion of his time, his talents and his means, without stint or grudging, to the furtherance of the great objects of the Society.

It affords me the more pleasure to pay this merited tribute to our former President, because whilst he was in office, it was my misfortune to differ with him in opinion in regard to measures which he deemed important, and pressed upon the adoption of the Society with his characteristic ardour and perseverance.

It may be said of him with entire truth, that in or out of office, he is a gentleman, without fear and without reproach.

The meeting of the 10th of March was deeply interesting. Mr. B. Johnson Barbour made an eloquent and most felicitous address. Mr. Harvie, of Amelia, at the instance of the Executive Committee, offered a series of resolutions, in which it was recommended that a Fair should be held in the ensuing fall, and calling upon the members to guarantee such amount, as might be indispensable to hold the first exhibition.

This appeal was promptly answered by J. Ravenscroft Jones, of Brunswick, an early, constant, and most judicious friend of the Society, who came forward and pledged his county for a liberal sum, and invited other gentlemen to do likewise. His example was speedily followed. Mr. Harvie pledged himself to be one of twenty who would become life members; his proposition was accepted, and in the course of the evening \$1,800 were secured for the object contemplated. Thus encouraged, the Executive Committee proceeded to make all necessary arrangements for the Fair. The President, carrying out the spirit of a resolution adopted at the first meeting of the Society, on the motion of Mr. Minor, of Albemarle, appointed with the approbation of the Committee, General Wm. H. Richardson, and his son, agents to canvass the State, procure new members, and to excite an interest in behalf of the Society and the approaching Fair. These gentlemen performed their duties with fidelity and zeal, and to the entire satisfaction of the President and the Committee. By their exertions, a number of new members

were added to the Society, its finances improved, and a general interest awakened throughout the Commonwealth, which contributed greatly to the success of the grand exhibition. The Councils of the city of Richmond were appealed to for aid and co-operation, and they promptly came forward, and with a liberality and public spirit which does them immortal honor, tendered to the Society the beautiful and commodious grounds which they occupied, embracing every accommodation, and which had been improved and adorned at the expense of the city, with all the embellishments which the highest art, or the most cultivated taste, could suggest.

The Railroad and other transportation companies met the wishes of the Society, with a promptness and liberality which demonstrates that corporations are not always soulless.

It was obvious that the public sympathies were enlisted, and that the farmers of Virginia were at length aroused to their true interests.

Under the happiest auspices, the glorious morning was ushered in, that was to reward, with brilliant success, the long and disinterested labors of their friends.

As if moved by one impulse, the whole people of the State seemed to be crowding to the capital. Each successive train came freighted with peaceful farmers, and poured them in masses on the city, like the armed hosts of Napoleon on the plains of Italy. Steamboats and stages, omnibuses and hacks, private carriages, buggies, sulkies, and neighing steeds, with their gallant riders, all served to swell the anxious throng. The day was bright and beautiful, and the sun shone as if from an Italian sky.

The long streets and broad avenues of the city were early filled with the interested multitude of every age, and sex, and calling, pressing to the Fair.

And the noon of that day witnessed a spectacle which, in moral sublimity and simple grandeur, far surpassed the most brilliant pageants of the old world. The great heart of Virginia exulted that day. Not over the exhibition of her material wealth, as displayed in the extent and variety of implements and machinery, the products of the workshops of her own artisans; not in the rich products of her gardens, orchards and fields, nor in her fine cattle, and sheep, and swine, and horses unsurpassed—

these were all worthy of the highest admiration. But it was not these that caused a thrill of joy to pass through every heart. It was, that Virginia, the glorious mother of us all, had that day, for the first time in her history, called together, around the family altar, her children from the remotest boundaries of her territory, to recognize the ties of kindred and affection, and to pour forth with one heart, their gratitude to God for the goodly heritage he has given us. Who that had the privilege to witness that brilliant scene, can ever blot it from his memory? My pulse, even now, beats quicker, as in memory I recall the cordial grasp with which I greeted old friends, whom distance had severed for years, and the greeting, scarcely less cordial, with which I met for the first time, hundreds as strangers, whom I now recognize as friends.

I survey again, in my mind's eye, the moving panorama. The brave men and fair women of Virginia, mingling in free, refined and unrestrained intercourse. The chivalry and the beauty of the State met together. The spacious avenues crowded with moving processions of both sexes, with joy beaming from their countenances, and exchanging a nod of recognition, a kind word or a smile of welcome. I see again the seats of the spacious amphitheatres, one above another, filled with every form of female loveliness and beauty, resembling the rich profusion and variety of choice flowers in a well-arranged conservatory. Again, I behold around the course the impenetrable wall of human beings, who watch with excited interest the eager contests of the high-mettled steeds, and ever and anon rend the air with shouts of triumph, such as may be supposed to have been heard of yore at the Olympian games, when some dexterous wrestler tripped his adversary or some gallant horseman or dashing charioteer passed his rival in the race.

These are scenes which, in all their freshness, can never be repeated. It was our first great State exhibition, and added the charm of novelty to all its other attractions. It was acknowledged on all hands to be a brilliant success. It gave unalloyed satisfaction to our own people, and intelligent observers pronounced it unequalled in this country and unsurpassed in the world.

Our own President justly pronounced it "a pageant and a triumph, such as Rome

herself, in all her glory, would have been proud to have witnessed."

The night of the 1st of November presented, if possible, a scene of more thrilling interest than the brilliant spectacle of the day. The vast crowd had quietly retired from the grounds, and the young and the old, the grave and the gay, returned to the city to indulge, according to their respective tastes, their feelings of gratulation in the merry dance, or social party, or animating conversation. At night the Society assembled in Metropolitan Hall, which was procured and brilliantly lighted for the occasion. The worth, and wealth, and intellect of Virginia were there. Mr. Harvie, of Amelia, came forward and offered a series of resolutions calling for individual subscriptions for the permanent endowment of the Society. These resolutions were advocated in a few earnest remarks by the mover and another member, and were responded to by the assembly with the utmost enthusiasm. Farmers and merchants, mechanics and professional men—all vied with each other in the liberality of their contributions, and in the course of the evening more than \$40,000 were subscribed. The scene was repeated the following night, and the contributions swelled to about \$50,000.

Up to this period, all went merry as a marriage bell. But the Society was now rich, and we had to encounter the dangers of prosperity.

Heretofore all services had been gratuitously performed, and there was no competition for place. Now we had a lucrative office to bestow; we were cursed for the first time with patronage, and patronage always engenders parties, and parties engender strife.

The appointment of Secretary was made by the Executive Committee, and as happens in all such cases, one party and his friends were well pleased with the result, whilst another party and his friends were equally dissatisfied. The wound, though seeming slight at first, continued to rankle and fester, until at the next meeting of the Society it threatened its dissolution.

The Executive Committee in the meantime proceeded quietly in the discharge of its duties, collecting interesting materials for its transactions, and making provision for the next annual exhibition. The second Fair, to the astonishment of all, was a more magnificent pageant than the first; larger

numbers were in attendance; the exhibition in every department was more extensive, and pronounced superior; and the officers of the Society had again the satisfaction of seeing their labours crowned with complete success.

The public press had undertaken to avenge the wrongs of the gentleman whose high claims to the office of Secretary had been reluctantly passed over, by the Executive Committee, for reasons entirely satisfactory to them, in favour of another. The Committee was denounced as an odious oligarchy, and excited appeals made to the members to reform the government of the Society. In the midst of this excitement, the night arrived for the annual election of officers. The African church was crowded to its utmost capacity—every seat and aisle was jammed with excited human beings, and hundreds failed to gain admittance.

It was obvious, that in such a body there could be no deliberation; there was no possibility of taking a vote, and a scene of wild excitement ensued which beggars all description. The fierce Democracy of Baltimore, New York, or even Paris in revolutionary times, have rarely been more excited on questions of the deepest interest.

The election, which could not be made in the usual manner, was carried by a sort of *coup d'état*, which could only be justified by the extreme necessity of the case, and the old officers were proclaimed duly elected. Delicacy would have constrained the gentlemen elected to decline these irregular appointments, but they had no alternative but to accept, or to dissolve the Society. It was now conceded on all hands that something must be done to avoid the recurrence of such scenes, and to provide for the orderly election of the Executive Officers. Provision for an electoral college, or for conducting the election by ballot on the Fair Grounds, would have met the difficulty.

But the success of the Society had been so astonishing, numbering now ten thousand members, and having a permanent endowment of fifty thousand dollars, that over-sanguine gentlemen began to indulge most extravagant ideas as to its true mission.

If not the State itself, it was at least an important power in the State, and only required proper organization to direct public

sentiment and control the legislation of the Commonwealth.

The idea of a Farmers' Assembly was suggested, not only to act as an electoral college, but as a sort of *imperium in imperio*, to legislate for the interest of agriculture, and by its dignity and influence to prescribe terms to the law-making power.

In vain it was urged in opposition to this scheme, that it was visionary and impracticable—that there could be no regular elections where there was no organized constituency, and that the Farmers' Assembly would expire by the default of the farmers to make elections. No, it was replied, it cannot fail, and the success of political conventions and ecclesiastical assemblies was appealed to as a conclusive argument by the friends of the measure—forgetting that political parties have immense patronage to bestow, and that each separate church congregation is an organized constituency that can at any moment appoint deputies to ecclesiastical assemblies.

A very intelligent committee was appointed to reform the government, and at the next annual meeting of the Society made a report of the present constitution; which, after protracted debate, was adopted. The Select Committee, foreseeing the probability of the failure of the Farmers' Assembly, very wisely made provision in the constitution for remitting all its powers to the Executive Committee, with power to perpetuate itself by filling vacancies in its own body.

Notwithstanding the unpleasant excitement at the last annual meeting, the success of the third exhibition of the Society was scarcely less complete than of the two which had preceded it. The fourth annual meeting was to test the untried experiment of a Farmers' Assembly. The Executive Committee had made every arrangement deemed necessary to its success. The State was divided into districts, and Commissioners of election appointed pursuant to the constitution, and the farmers urged to send their representatives to the Assembly. The novelty of the scheme attracted some attention, and few of the elections went by default.

On the 28th of October, 1856, at 10 o'clock in the morning, the Farmers' Assembly met for the first time in the Hall of the House of Delegates. The body was respectable in numbers, and more than re-

spectable in talents and character. Among its members were some of the foremost men in the Commonwealth—statesmen, lawyers, farmers, men of the largest experience, of the highest intellectual endowments, and of incorruptible integrity. It was organized by the unanimous election of a distinguished statesman to the Chair. The President of the Society delivered his first annual message, embracing as many and important recommendations as are usually contained in a message of the President of the United States.

It was obvious at a glance to the most careless observer, that an Assembly thus called together for a very limited time however enlightened, was entirely incompetent to consider the grave and important subjects referred to them.

A few unimportant resolutions were offered and adopted, and every subject requiring deliberate consideration, was referred to the Executive Committee. The members proceeded quietly to discharge their duty as an electoral college; the speaker delivered a short valedictory, the Farmers' Assembly adjourned and its high prestige was gone.

At the next annual meeting of the Society, the Farmers' Assembly convened for the second time, with its number somewhat reduced—elected the same distinguished gentleman speaker—passed through the same round of abortive resolutions—elected the Executive officers, and quietly adjourned, perhaps for the last time. At the next meeting, it failed for the want of a quorum, and I think it now quite certain, that it will never meet again, except, perhaps, as an electoral body.

President Cocke, at this meeting, declined a re-election, and the veteran, who had so long and so efficiently served the Society, was again placed at its head by the unanimous vote of the Farmers Assembly; and I am most happy to see him here to-night, ready and willing, like the illustrious Scotchman already referred to, to devote, as I trust, the long remnant of a green old age, to the disinterested service of his country.

The fourth and fifth annual exhibitions were held at Richmond with gratifying success. Yet it was obvious that these spectacles, from their frequency, had lost much of their interest.

Indeed, it may be gravely questioned, whether sound policy does not require that

these exhibitions should be held at much longer intervals.

The improvements in agriculture during a single year are scarcely appreciable, and the annual exhibitions present little that is new, to interest. The Olympian games were, in some respects, not altogether unlike our agricultural shows. They were held every fifth year, and so great were their attractions, that they continued for centuries to draw not only from all Greece, but from the neighboring countries and islands; vast crowds of admiring spectators.

Complaints began to be made of the failing interest of the Society, or of the inefficiency of the executive government. Cavilers who had never taken the trouble to look into the transactions, and to see what a vast amount of valuable and interesting information had been collected and diffused, asked, are these annual pageants to be the only results of the liberality of the farmers of Virginia, in the endowment of the Society? Like Naaman, the Syrian, they required some great thing to be done.

Why, they asked, does not the Society employ its vast funds to establish an agricultural school, or endow a professorship at the University? In a word, why does it not do something worthy of itself, and of the farmers of Virginia.

The invested funds of the Society represent an annual income of about \$3,000; a sum, which any man of the least practical intelligence will see, is barely sufficient to keep up the organization of the Society, and to defray such contingent expenses of the annual Fairs as may not be provided for by receipts from other sources. But has the Society not accomplished something? Is it nothing to have added to the agricultural literature of the country contributions of great learning and ability, and in practical usefulness unsurpassed? Is it nothing to have infused new hope, energy, power and intelligence into the whole farming class? Is it nothing to have more than doubled the value of the lands of the Commonwealth, and the revenues of both State and people? And by the profits of improved agriculture, to have added vastly to the value of her slaves and of all other property? Is there nothing in the impulse given by its influence to education, both private and public, by diffusing among the schools and colleges, and among the people themselves, larger views and higher aspirations? Is there nothing

in the high moral and social influences of the frequent re-unions of our people from distant quarters of the Commonwealth, at the annual exhibitions? Macaulay, in the celebrated third chapter of his history, contrasts, in a philosophical spirit, England at the close of the reign of Charles the second with England in his own times. The state of the arts, sciences, government, society, commerce, manufactures and agriculture, all pass in review. The improvements in agriculture had been such, he represents, that in little more than a century a fourth part of England had been turned from a wild into a garden. If the Virginia State Agricultural Society were, this day, to cease to exist, the future historian, although he might not say with Macaulay, that during its brief existence it had converted one fourth of the State from a wild to a garden, he would want the philosophical spirit of that distinguished writer, if he did not refer to its establishment as an important epoch in her history. Truth would compel him to say, it found her agriculture languishing and depressed, and left it flourishing and profitable. It found her farmers dispirited and restless—it left them hopeful, buoyant and content. It found agricultural science a sealed book, except to the educated and learned; it left its great principles familiar as household words to the masses. It found her implements of agriculture, and her domestic animals, so mean and wretched as to be a by-word and reproach; it left them so excellent as to excite universal admiration. It found improved culture confined to a few individuals and localities; it left it universally diffused.

It found her farmers dispersed and isolated—it left them united as a band of brothers. It found her people of all classes separated by local divisions and prejudices, and strangers and aliens to each other; it gathered them like an ancient patriarch, under the family tent, henceforth to be kindred and friends.

These are some of the beneficent results that the impartial historian must attribute to the establishment of the Agricultural Society of Virginia.

Whether it shall continue to dispense similar blessings to our posterity, depends upon the spirit with which it shall be sustained by the united agricultural interests of this great Commonwealth. It represents no local interests—it makes no sectional appeal—it is the Agricultural Society of the STATE,

and rests upon the broad foundation of the entire Commonwealth. It cannot be denied that it is *now* encompassed with many difficulties.

The Executive Committee have thought that the Capital of the State is the proper place for holding the meetings of a State Society, and have been sincerely desirous to continue them in Richmond. Owing to some misunderstanding between the city council and the executive committee, the details of which need not here be examined, they found it impossible, consistently with a sense of duty, to hold the last annual exhibition in Richmond, and as you are aware, it was held in this city with entire satisfaction to all parties.

The event is too recent to require any very extended notice, but it would be unpardonable not to refer with grateful emotions, to the cordial courtesy with which we were received by the officers of the Union Society, and to the generous, refined and elegant hospitality, extended to us by the warm hearted people of the city of Petersburg.

The citizens of Richmond, as was perhaps natural, took umbrage at the action of the Executive Committee in removing the exhibition, and there were found among them a sufficient number ready to fan the flame, until the city was wrought into high excitement.

In this state of feeling, it was determined to establish a rival Society; I say rival, because the organization of the Central Society, confined to no locality, stretches from the mountains to the sea, and it cannot be disguised, it aspires to the character of a State institution.

It is impossible for two State Agricultural Societies to exist in the same Commonwealth, as it is for two kings to reign in the same kingdom. King Monmouth and King James could not both exist in England. The Pretender was put down, though the Prince of Orange soon stepped in, and founded on the ruins of both factions, more stable and beneficent institutions.

A lesson of wisdom may be learned from these historical incidents.

Let there be an end of strife—let Richmond be again generous and magnanimous, forgetting her mere local interests in the larger and more comprehensive interests of this glorious Commonwealth, the prosperity of which must advance her own glory as the capital of the State. Let the Central

Society confine itself to some locality, and instead of aspiring to be the rival of the State Society, and seeking to expel it as a stranger and an alien, let it be subsidiary to it, in the accomplishment of its beneficent objects. The State Society has all the elements of its usefulness still unimpaired; its organization is complete, its funds intact, and although the Farmers' Assembly, as was anticipated, has proved a splendid failure, its old constitution, under which it achieved all its triumphs, is in full force, and nothing is wanted but the cordial co-operation of the farmers of Virginia, to enable it to advance steadily in its course of usefulness and distinction.

It would have afforded me great pleasure, in this hasty and imperfect sketch, to include the names of those who, by their labors or their means, have contributed to advance the objects of the Society. But this was impossible. The orators who at our annual exhibitions have delighted and instructed us by their learned and eloquent discourses, and the members of the Executive Committee, now no longer in office, who have rendered most laborious and efficient service, are entitled to our lasting gratitude. Their labors are recorded in the imperishable annals of the Society, and their names will go down to posterity among the benefactors of their race.

I have now, Mr. President, given a brief outline of the history of the Society, of its past achievements, and present condition.

Its future, farmers of Virginia! rests with you. To you, and to the enlightened friends of Agriculture throughout the Commonwealth, the Executive Committee now make their appeal. If the arduous labors of conducting the administration of its affairs shall again devolve upon them, they ask the support of your generous confidence. They have no personal feelings to gratify, and no private interests to serve.

I might appeal without arrogance to their past services and personal characters, as a sufficient guarantee of their fidelity, but the absence of all unworthy motives gives assurance that their trust will not be betrayed.

Let no local interest, or personal feeling, or idle clamor, disturb your judgment. Let that noble State pride which gave birth to the Society, still animate your actions.

Remember that this is the Society of no

clique, or party, or section, or city, but of the great Commonwealth of Virginia.

Banish your apathy and indifference, and come, with generous aspirations, to the cordial support of those who will continue to devote with energy and zeal, their time and talents to your service.

Thus sustained, the Virginia State Agricultural Society will continue to advance in its career of usefulness, and will dispense its blessings to our children's children, and remain to our latest posterity, a monument of the wisdom and munificence of its founders.

PREMIUMS AWARDED

AT THE

SEVENTH ANNUAL EXHIBITION

OF THE

Virginia State Agricultural Society,

HELD AT PETERSBURG,

ON THE

1st, 2nd, 3rd and 4th November. 1859.

EXPERIMENTS, BRANCH I. and

WRITTEN COMMUNICATIONS, BRANCH II.

By the rules of the society, have been referred to the Executive Committee, to be reported on at their quarterly meeting in January.

BRANCH III. CLASS 1st.

Thoroughbred Horses.

73. To J. M. Garland, for the best Stallion, "Deucalion,"	\$50 00
74. To Thomas D. Walton, for the 2d best, "Mohican,"	25 00
76. R. R. Beazley, for the best Brood Mare,	25 00
77. Wm. C. Scott, for the second best, "Pauline,"	12 50
78. R. R. Beazley, for the third best, "Lady Merritt,"	CERTIFICATE OF MERIT.
83. John Eubank, for the best filly, 2 years old, "Ellen Perry,"	10 00
84. John Eubank, for the best filly, 1 year old,	7 50
85. To R. R. Beazley, for best Foal dropped since 1st January, 1859,	5 00

BRANCH III. CLASS 2ND.

Horses of General Utility, or for Useful and Ornamental purposes combined.

86. To J. A. Dyer, for best Stallion, "Washington Bay,"	\$50 00
87. To T. F. Epes, for 2nd best Stallion, "Mark,"	25 00

89. To John Dyer, for best Brood Mare, "Sally,"	25 00
90. To L. G. Simonson, for 2nd best Brood Mare, "Gold-pin,"	12 50
91. To Wm. C. Archer, for 3rd best Brood Mare, "Molly,"	CERTIFICATE OF MERIT.
92. To Wm. B. Irby, for best 3 year old colt, "Floyd,"	15 00
93. To John W. Dyer, for best 2 year old colt, "Yellow Jacket,"	10 00
94. To H. M. Fowlkes, for best 1 year old colt, "Hampton,"	7 50
95. To John Eubank, for best 3 year old filly, "Ellen Carter,"	15 00
96. To Robert Berry, for best 2 year old filly, "Nina,"	10 00
97. To D. Dyson, for best 1 year old filly, "Fanny Fly,"	7 50
98. To John R. Woods, for best Foal dropped in 1859.	5 00
99. To G. W. Mowry, for best pair Matched Horses,	25 00
100. To Abraham Johnson, for 2nd best pair Matched Horses,	10 00
101. To D'Arcy W. Paul, for best single harness horse, "Black Bill,"	15 00
102. To J. T. Stover, for second best single harness horse, "Champion,"	10 00

BRANCH III. CLASS 3RD.

Quick Draught Horses.

103. To H. J. Smith, for best stallion "Kossuth," certificate of continued superiority, having taken the first Premium at four different Exhibitions.	
104. To S. W. Ficklin, for second best "Black Hawk,"	\$25 00
105. Wm. Watts, for third best, "Defiance,"	CERTIFICATE OF MERIT.
106. To J. R. Allen, for best Brood Mare, "Lady Clifford,"	25 00
107. To S. W. Ficklin, for second best "Dun Mare,"	12 50
109. To John Rowlett, for best 3 year old colt, "Upright,"	15 00
110 To — Howlett, for best 2 year old colt, "Jack Clifton,"	10 00
111. To E. T. Dillard, for best 1 year old colt, "Sigourney,"	7 50
112. To John R. Woods, for best 3 year old filly,	15 00
113. To S. W. Ficklin, for best 2 year old filly, "Lady of the Lake,"	10 00
115. To Virginus Archer, for best Foal dropped in 1859,	5 00
116. To D. T. Harvey, for best pair Matched Horses,	25 00
118. To J. H. Norton, for best single harness Mare, "Nannie Bell,"	15 00
119. To T. Trench, for second best, "Lady Suffolk,"	10 00

BRANCH III. CLASS 5TH.

Heavy Draught Horses.

120. To R. W. N. Noland, for best Stallion, "Welbourne,"	\$50 00
121. To J. A. Weston, for second best Stallion, "Norman Messenger,"	25 00
122. To G. S. Ayre, for best Brood Mare, "Betty,"	25 00
124. To Wm. B. Irby, for second best, "Sally Eubank,"	12 50
128. To T. E. Dillard, for best 1 year old colt,	7 50
129. To Charles L. Peyton, for best 3 year old filly, "Georgeanna,"	15 00
131. Thomas Perkinson, for best one year old filly, "Rose,"	7 50
132. To G. S. Ayre, for best Foal dropped 1859,	5 00
133. To J. Carrington, for best pair Horses,	20 00

BRANCH III. CLASS 5TH.

Saddle Horses.

135. To B. W. L. Blanton, for best Stallion, "Young Red Eye,"	50 00
138. To Thos. E. Friend, for best Brood Mare "Lady,"	25 00
143. To Henry F. Davis, for best one year old colt, "Thom Telegraph,"	7 50
144. To Henry F. Davis, for best 3 year old filly, "Annettee Thom,"	15 00
148. To B. W. L. Blanton, for best saddle horse, "Grey Sanford,"	20 00
149. To D. Newton VanLear for 2nd best, "Billy,"	10 00
150. To Albert Aiken, for best Poney, "Grey Bill,"	5 00

BRANCH III. CLASS 6TH.

Mules and Jacks.

151. To R. A. Young, (agent for Purser Johnson,) for the best Jack "Maltese,"	50 00
152. To T. E. Dillard, for second best, "Red Eye,"	25 90
153. To Wm. H. Griffith, for best Jennet, "Mary,"	25 00
154. To Sharpe Carter, second best,	10 00
155. To C. B. Turner, for best pair of Mules owned and worked one year by exhibitor,	15 00
156. C. B. Turner, for best team of 4 Mules owned and worked 1 year by exhibitor,	25 00

BRANCH III. CLASS 1ST.

Durham Cattle.

161. To D. B. Sanders, for best bull, over 3 years old, "Highlander,"	\$50 00
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162. To A. M. Young, for second best, "Gambier,"	\$25 00
163. To S. W. Ficklin, third best,	
CERTIFICATE OF MERIT.	
164. To S. W. Ficklin, best cow, "Victoria 2d,"	50 00
165. To D. B. Sanders, second best, "Hawthorn,"	25 00
166. To D. B. Sanders, third best, "Clarissa Brown,"	
CERTIFICATE OF MERIT.	
167. To D. B. Sanders, best bull, between 2 and 3 years old, "Valentine,"	40 00
170. To A. M. Young, for best bull, between 1 and 2 years old, "Judge Douglas,"	25 00
171. To D. B. Sanders, for 2nd best, "Van Thromp,"	12 50
172. To D. B. Sanders, for best heifer, between 2 and 3 years old, "Marion Harland,"	25 00
173. To D. B. Sanders, for 2nd best, "Alverda,"	12 50
174. To D. B. Sanders, for best heifer, between 1 and 2 years old, "Molly May,"	25 00
175. To S. W. Ficklin, for second best, "Red Rose,"	12 50

BRANCH III. CLASS 2ND.

Devon Cattle.

177. To S. T. C. Brown, for best bull, 3 years old and upwards, "Defiance,"	\$50 00
178. To H. J. Strandberg, for second best, "Richmond,"	25 00
180. To H. J. Strandberg, for best cow, 3 years old and upwards, "Matilda,"	50 00
182. To S. T. C. Brown, for 3rd best, "Cherry,"	
CERTIFICATE OF MERIT.	
183. To H. F. Davis, for best bull, between 2 and 3 years old, "Billy,"	40 00
184. To S. S. Bradford, for 2nd best, "Henry Clay,"	20 00
186. To H. F. Davis, for best bull, between 1 and 2 years old, "Thom,"	25 00
187. To H. J. Strandberg, for second best, "Enterprise,"	12 50
188. To S. T. C. Brown, for best heifer, between 2 and 3 years old, "Blossom,"	25 00
189. To Dr. T. J. Wooldridge, for 2d best, "Rena,"	12 50
190. To S. T. C. Brown, for best heifer, between 1 and 2 years old, "Mole,"	25 00
191. To H. F. Davis, for second best, "Nelly,"	12 50
192. To J. M. Venable, for best calf, under 1 year old, "Pinkey,"	10 00
180½. To F. J. Carson, for best imported cow, 3 years old and upward, "Penelope,"	50 00
188½. To F. J. Carson, for best imported heifer, between 2 and 3 years old, "Lady,"	25 00

BRANCH III. CLASS 3RD.

Ayrshire and Alderney Cattle.

193. To J. B. Crenshaw, for best Ayrshire bull, 3 years old and upwards, "Lord Mar,"	\$40 00
194. To David Dunlop, for 2nd best, "Little Jack,"	20 00
196. To Peyton Johnston, for best Alderney cow, 3 years old and upwards,	40 00
197. To A. Turpin, for second best, "Mocking-Bird,"	20 00
204. To S. W. Ficklin, for best Alderney bull, between 1 and 2 years old, "Martin,"	20 00
196½. To A. Turpin, for best Ayrshire cow, three years old and upwards, "May Queen,"	40 00
196¾. To A. Turpin, for best imported Alderney, 3 years old and upwards, "Ladyship,"	40 00

BRANCH III. CLASS 4TH.

Grade Cattle.

209. To Paschal Buford, for best cow, 3 years old and upwards,	\$40 00
210. To Crouse & Irvine, for second best,	20 00
211. To S. W. Ficklin, for third best,	
CERTIFICATE OF MERIT.	
212. To S. W. Ficklin, for best heifer, between 2 and 3 years old,	12 00
213. To S. W. Ficklin, for 2nd best,	8 00
215. To Jas. Walker, for best heifer, between 1 and 2 years old,	12 00
216. To Reuben Andrews, for second best,	8 00
217. To Paschal Buford, for best heifer calf, under 1 year old,	5 00

BRANCH III. CLASS 5TH.

Dairy Cows.

218. To S. T. C. Brown, for best cow for dairy, "Delight,"	40 00
219. To Crouse & Irvine, second best, "Star,"	20 00

BRANCH III. CLASS 6TH.

Working Oxen.

220. To Crouse & Irvine, for best, over 4 years old,	\$30 00
221. To James Walker, for 2nd best	15 00
222. To H. F. Davis, for best, under 4 years old,	30 00

BRANCH III. CLASS 7TH.

Fat Cattle.

224. To Crouse & Irvine, for best pair aged steers,	\$50 00
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226. To Crouse & Irvine, for best pair under 4 years old,	\$50 00
227. To Crouse & Irvine, for second st,	30 00
228. To Crouse & Irvine, for best pair ws or heifers,	50 00
229. To Crouse & Irvine, for second st,	30 00
230. To Crouse & Irvine, for best fat w, over 4 years old,	25 00
231. To Crouse & Irvine, for second st,	15 00
232. To Crouse & Irvine, for best fat ifer,	25 00
233. To Crouse & Irvine, for second st,	15 00
234. To Jas. Walker, for best single t steer,	25 00

BRANCH III. CLASS 8TH.

Fat Sheep and Swine.

236. To Wm. C. Rives, for the best n fat sheep, four or more,	\$10 00
237. To M. P. Bell, for the best pen fat hogs, seven in number,	10 00

BRANCH III. CLASS 1ST, &C.

Fine-Wool Sheep—Merino.

239. To S. S. Bradford, for best native m,	\$20 00
240. To S. S. Bradford, for 2d best,	10 00
241. To S. S. Bradford, for 3d best,	
CERTIFICATE OF MERIT.	
242. To S. S. Bradford, for best pen ative ewes, three in number,	20 00
243. To S. S. Bradford, for 2d best,	10 00
245. To S. S. Bradford, for best pen we lambs, four in number,	10 00
246. To S. S. Bradford, for best pen m lambs, four in number,	10 00
247. To S. S. Bradford, for best pen rade ewes, three in number,	20 00
248. To S. S. Bradford, for 2d best,	10 00
250. To S. S. Bradford, for best pen we lambs, four in number,	10 00
288. To S. S. Bradford, for best im-ported ram,	20 00
289. To S. S. Bradford, for 2d best,	10 00
290. To S. S. Bradford, for best im-ported ewe,	20 00
291. To S. S. Bradford, for 2d best,	10 00

BRANCH III. CLASS 3RD, &C.

Middle-Wool Sheep—South-Down.

252. To Thos. L. Farish, for the best outh-Down ram,	\$20 00
253. To Richard Irby, for 2d best,	10 00

FIFTH CLASS.

Oxford-Downs.

264. To Wm. C. Rives, for best ram,	\$20 00
265. To Wm. C. Rives, for 2d best,	10 00
267. To Wm. C. Rives, for best pen of ewes, three in number,	20 00
268. To Wm. C. Rives, for 2d best,	10 00
271. To Wm. C. Rives, for best pen ram lambs,	10 00

SIXTH CLASS, &C:

Oxford-Down Grades.

275. To Wm. C. Rives, for best pen ewe lambs,	\$10 00
296. To Wm. C. Rives, for best im-ported Oxford Down ram,	20 00
297. To Wm. C. Rives, for 2d best,	10 00
298. To Wm. C. Rives, for the best imported ewe,	20 00
299. To Wm. C. Rives, for 2d best,	10 00

BRANCH III. CLASS 7TH.

Long-Wool Sheep.

276. To Thomas G. Baylor, for best Cotswold ram,	\$20 00
279. To Dr. John R. Woods, for best pen of Cotswold ewes,	20 00
283. To Dr. John R. Woods, for best pen ewe lambs,	10 00

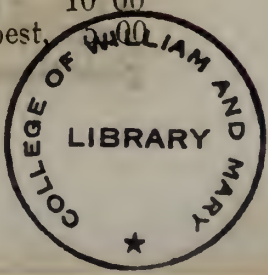
CLASS 8TH.

284. To Thomas G. Baylor, for best pen grade ewes,	20 00
287. To Thos. G. Baylor, for best pen ewe lambs,	10 00

BRANCH III. CLASS 1ST.

Swine—Large Breed.

310. To S. W. Ficklin, for best boar over two years old, "John,"	\$20 00
311. To Peyton Johnston, for second best, "Sir John,"	10 00
312. To Peyton Johnston, for best boar, one year old, "Peyton,"	15 00
313. To S. W. Ficklin, for 2nd best,	8 00
314. To Peyton Johnston, for best breeding sow, two years old, "Mrs. Ginte,"	20 00
315. To R. M. Poole, for second best, "Mary,"	10 00
316. To S. W. Ficklin, for best sow under 18 months old,	15 00
317. W. H. Griffith, for second best,	8 00
318. To S. W. Ficklin, for best lot of pigs under five months old,	10 00
319. To Wm. H. Griffith, for 2d best,	10 00



BRANCH III. CLASS 2D.

Swine—Small Breed.

321. To Peyton Johnston, for second best boar, two years old, "Duke,"	\$10 00
322. To Dr. J. E. Williams, for best boar, one year old, "Rhinebeck."	15 00
323. To Dr. J. E. Williams, for 2nd best, "Jack Turpin."	8 00
324. To Peyton Johnston, for best sow, two years old, "Princess,"	20 00
325. To Peyton Johnston, for second best, "Dutchess."	10 00
326. To R. M. Poole, for best sow under 18 months old.	15 00
327. To G. M. T. Bass, for 2nd best, <i>Chester and Suffolk</i> ,	8 00
328. To Daniel Dyson, for best lot of pigs, ten weeks old,	10 00
329. To James F. Devlin, for second best, eight weeks old,	5 00

ADDITIONAL PREMIUMS ON PREMIUM ANIMALS.

332. To S. W. Ficklin, for the best stallion of any breed on exhibition, "Black Hawk,"	CERTIFICATE OF MERIT.
333. To T. W. Dyer, for best brood mare, "Sally,"	
334. To Thomas G. Baylor, for the best ram,	
335. To Samuel S. Bradford, for the best ewe,	
336. To S. W. Ficklin, for the best boar,	
337. To S. W. Ficklin, for the best breeding sow,	

The Committee having heard that objections were raised to their acting as judges on Cattle, declined acting in relation to them, and hence there is no award. The contest was very close between "Black Hawk" and Mr. Noland's horse "Melbourne." Such members of the Committee as were interested in animals submitted for the premiums, withdrew when these animals were under examination.

BRANCH III. CLASS 1ST.

Poultry.

343. To Waverley Rowlett, for best Black Poland,	\$2 00
344. To Waverly Rowlett, for best White Poland,	2 00
347. To Waverly Rowlett, for best Spangled Hamburg.	2 00
348. To Archer Martin, for the best White or Red Game,	2 00
350. To Archer Martin, for best Virginia Game,	2 00

351. To R. W. Flowers, for the best Black Spanish,	2 00
353. To Archer Martin, for the best Wild Indian Game,	2 00
354. To H. Bissett, for best Sumatra Game,	2 00
356. To Mrs. J. E. Williams, for best Bolton Greys,	2 00
357. To W. Hurt, for best Seabright Bantams,	2 00
358. To Waverly Rowlett, for best Java Bantams,	2 00
360. To Waverly Rowlett, for best Jersey Blue,	2 00

CLASS 2ND.

Turkeys.

361. To W. Archer, for best pair of common,	\$2 00
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CLASS 3RD.

Geese.

364. To J. T. Devlin, for best pair of common.	\$2 00
366. To A. Turpin, for best pair of China,	2 00
367. To A. Turpin, for best pair of Bremen,	2 00
368. To A. Turpin, for best pair of Poland,	2 00
369. To A. Turpin, for best pair of African Swan,	2 00

CLASS 4TH.

Ducks.

370. To Waverly Rowlett, for best Poland,	\$2 00
373. To W. Flowers, for best common,	2 00

CLASS 5TH.

Variety.

375. To A. Turpin, for greatest variety of poultry by one exhibitor,	\$10 00
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BRANCH IV.

AGRICULTURAL IMPLEMENTS.

CLASS 1ST.

Ploughs, Cultivators, &c.

376. To George Watt & Co., for the best 3 or 4 horse plough,	\$10 00
377. To Williams, Collins & Co., for the best 2 horse plough,	8 00
378. To E. Whitman & Co., for the best single plough,	5 00
379. To P. H. Starke, for the best shovel plough,	5 00

380. To E. Whitman & Co., for the best sub-soil plough,	\$5 00
381. To George Watt & Co., for the best new-ground or colter plough,	5 00
382. To P. H. Starke, for the best H-side plough,	5 00
383. To P. H. Starke, for the best cultivator for corn,	5 00
384. To P. H. Starke, for the best cultivator for tobacco,	5 00
385. To P. H. Starke, for the best cultivator for two horses,	5 00
386. To P. H. Starke, for the best wooden frame harrow,	6 00
387. To E. Whitman & Co., for the best iron-frame harrow,	6 00
388. To Uriah Wells, for the best chain and furrow plough for opening and cleaning out water furrows,	10 00

CLASS 2ND.

Drills, Broadcasters, &c.

389. To — Cahoon's Patent, for the best broadcasting or drilling machine for sowing grain or grass seed,	20 00
390. To E. Whitman & Co., for the best wheat drill,	20 00
391. To E. Whitman & Co., for the best broadcasting machine for sowing grain,	20 00
392. To E. Whitman & Co., for the best lime spreader,	20 00
393. To A. P. Routt, for the best corn planter,	10 00
395. To E. Whitman & Co., for the best attachment to drill for drilling grain,	15 00

CLASS 3RD.

Wagons, Carts, Harness, &c.

397. To J. Van-Pelt, for the best wagon for farm use,	10 00
404. To E. Whitman & Co., for the best ox yoke,	2 50

CLASS 4TH.

Rollers, Clod Crushers, and Farm Gate.

405. To E. Whitman & Co., for the best smooth roller,	10 00
407. To E. Whitman & Co., for the best clod crusher,	10 00

CLASS 5TH.

Horse Powers, Threshers, Separators, &c.

409. To J. W. Cardwell & Co., for the best sweep horse power, Petton's Patent,	25 00
410. To J. W. Cardwell & Co., for the second best sweep horse power, Double-Geared,	10 00

411. To J. W. Cardwell & Co., for the best threshing machine, Staple-Tooth,	\$20 00
412. To J. W. Cardwell & Co., for the best machine for threshing, cleaning and separating wheat at one operation, Guiser's Patent,	30 00
413. To M. S. Kahle, for the best machine for gathering clover seed,	20 00

CLASS 6TH.

Straw and Root Cutters, Corn Shellers, Mills, &c.

415. To R. St. Clair & Co., for the best hay or straw cutter for horse power,	10 00
416. To E. E. Platt, for the best hay or straw cutter for hand power,	5 00
418. To E. Whitman & Co., for the best corn sheller for horse power,	10 00
419. To E. Whitman & Co., for the best corn sheller for hand power,	5 00
422. To E. Whitman & Co., for the best corn and cob crusher,	10 00

Mr. G. B. Griffin exhibited a hay and straw cutter, for hand power, very little inferior to Mr. E. E. Platt's, to which the premium was awarded.

CLASS 7TH.

Fan Mill, Hay Press, Ditching Machine, &c.

425. To J. Montgomery & Brother, for the best fanning mill,	
CERTIFICATE OF CONTINUED SUPERIORITY.	
426. To E. Whitman & Co., for the best hay press,	\$15 00
430. To E. Whitman & Co., for the best steel spade fork,	2 00
431. To E. Whitman & Co., for the best horse rake for hay,	5 00
432. To H. Whitman & Co., for the best gleaner,	3 00

CLASS 8TH.

434. To E. Whitman & Co., for the most extensive and valuable collection of useful machines and implements exhibited and made at any one factory, whether including subjects for other premiums or not, a premium of	25 00
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CLASS 9TH.

Miscellaneous.

437. To A. E. Huff, for Kahle's Patent, for the best scoop or scraper,	10 00
449. To E. Whitman & Co., for the best churn,	4 00

CLASS 11TH.

Ploughing Match.

446. To Wm. Shepperson, with Watt's Virginia Plough, for the best ploughman with horses, \$10 00

447. To J. B. Jones' colored man, do. do., for the second best ploughman with horses, 5 00

CLASS 13TH.

Reaping and Mowing Machines.

453. To C. Aultman & Co., for the best reaping machine, Buck Eye, 25 00

454. To C. Aultman & Co., for the best mowing machine, Buck Eye, 20 00

BRANCH V.

ORCHARD AND GARDEN PRODUCTS.

CLASS 1ST.

Fruits and Fruit Trees.

456. To Westbrook & Mendenhall, for the best and largest variety of apples suitable for Southern raising, each labeled, 10 00

457. To Westbrook & Mendenhall, for the best and largest variety of pears, 8 00

459. To F. Davis, for the best and largest collection of apple trees, suitable for Southern raising, 10 00

460. To Jos. Sinton & Sons, for the best pear trees, 10 00

461. To James Via, for the best peach trees, 10 00

462. To Joseph Sinton & Sons, for the best fig trees, 5 00

463. To James Via, for the best grape vines, 5 00

465. To F. Davis, for the best raspberry plants, 3 00

466. To Mrs. Henry Jarratt, for the best bushel dried apples, 3 00

467. To Mrs. Henry Jarratt, for the bushel dried peaches, 3 00

CLASS 2ND.

Flowers.

469. To Mrs. James Ayres, for the largest and choicest collection of plants, 10 00

470. To Miss Nancy Glover, for the second best, 5 00

473. To Mrs. James Donnan, for the greatest variety of roses, 5 00

475. To Mrs. James Ayres, for the best and largest collection of chrysanthemums, 3 00

476. To Mrs. J. B. Varnum, for the

best floral ornament, \$5 00

477. To Mrs. James Ayres, for the best hand bouquet, not more than eight inches in circumference, 2 00

479. To F. Davis, for the best and largest collection of evergreens, 5 00

REPORT OF THE COMMITTEE.

The Committee, to whom has been referred the duty of awarding the Premiums in the Floral Department, beg leave respectfully to report, that they have discharged the duty assigned to them, and that they concur in the foregoing awards.

The Committee feel that they should do themselves injustice, if they failed to express their regret at finding so few competitors in this department of the Exhibition.

In the various branches of Agriculture, in the mechanic arts, and in the multifarious operations of good housewifery, and skillful handicraft with the loom, the needle, or the pencil, it is gratifying to witness the ample proofs of improvement from year to year. But where are the beautiful and fragrant flowers, so eloquent of truth, goodness and love? Where are the tropical fruits, so enchanting to the eye, so inviting to the taste and so suggestive of the primeval Paradise? Where are the evergreens, reminding us of immortality and glory, and freshening even the desolateness of the tomb with the amaranthine hues of heaven?

Excepting sunshine, rain and air, there is scarce any object in nature which God has diffused with a more affluent bounty than flowers. Not only in the meadow, by the brooklet, and on the lawn—but buried in the depths of the ocean-like forests, far down in the obscure dell, and on Alpine heights, where they wage an unequal war with eternal snow and ice—they show their smiling faces and pour out their charming fragrance.

This seeming prodigality in the abundance and dissemination of these "silent dwellers on the earth," has been beautifully recognized in the oft-quoted couplet,

"Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

But is it waste? Is not the thought, even presumption? Who will dare to say that those unnumbered flowers, which have never been greeted by human eye, do not pour life and health into the atmosphere which we breathe. Besides, it is more than mere poetry that,

"Millions of spiritual beings walk the earth
Unseen both when we wake and when we sleep."

And who will venture to say that they, with their etherialized intellects, and their loftier and purer sentiments than belong to earth, do not a thousand times more enjoy these floral charms, than do any of the sin-stained men

ers of our race? It were as wise to say, that the atmosphere which floats, untouched by living creature, a dozen miles above our heads, is waste: that the stars, which show only as diamond-points in the sky—and especially, those countless myriads of them which neither the eye, nor the telescope, has ever yet brought to view—is waste. Hush! presumptuous man! “Canst thou by searching, find out God?”

Flowers are one of the mightiest educational forces which God has brought into being. The cultivation of them improves the intellect, refines the sensibilities, purifies the heart, and softens and beautifies the whole character. The lady whose fingers daily train the tender vine, and whose eye watches the opening petals, gives clear proof of gentleness, delicacy and refinement. And the gentleman who luxuriates in flowers, twirls them in his fingers, and wears them in his button-hole, cannot be lost in sordid selfishness, sensuality and vice:—and such an one—to the gentler sex we hint it—may be relied upon in most cases, as having left some avenue, or postern gate, leading to the heart, unguarded, where successful assault may be made.

Silent and often unobserved as is this power for good, it nevertheless takes hold, and with an all-pervading grasp, of our earliest years. Howitt has beautifully revealed our thoughts on this interesting theme as follows:

“With what eagerness do very infants grasp at flowers! As they become older they would live forever among them. They bound about in the flowery meadows like young fawns; they gather all they come near; they collect heaps; they sit among them and sort them, and sing over them, and caress them, till they perish in their grasp. We see them coming wearily into the towns and villages, loaded with posies half as large as themselves. We trace them in shady lanes, in the grass of far off fields, by the treasures they have gathered and have left behind, lured on by others still brighter.

“As they grow up to mature years, they assume, in their eyes, new characters and beauties. Then they are strewn around them, the poetry of the earth. They become invested, by a multitude of associations, with innumerable spells of power over the human heart; they are, to us, memorials of the joys, sorrows, hopes, and triumphs of our forefathers; they are, to all nations, the emblems of youth in its loveliness and purity.”

In conclusion, therefore, we beg leave earnestly to recommend to our entire community, and especially to the MOTHERS AND DAUGHTERS, a greatly increased attention to the cultivation of flowers—not only as a source of rational entertainment and pleasure, but as a powerful means for good, in training the young to intelligence, purity, refined sensibility and virtue, and in perpetuating to mature years, with the

freshness and greenness of youth, the same excellent qualities.

Respectfully submitted, in behalf of the Committee,

A. J. LEAVENWORTH, *Chairman.*

CLASS 3RD.

Vegetables.

- | | |
|--|-------|
| 481. To W. B. Bagley, for the largest and best assortment of table vegetables, | 10 00 |
| 482. To A. A. Archer, for the best dozen long blood beets, | 2 00 |
| 483. To W. Bowden, for the best dozen head of cabbage, | 2 00 |
| 486. To H. J. Smith, for the best dozen carrots, | 2 00 |
| 488. To W. B. Bagley, for the best peck of onions, | 2 00 |
| 489. To H. J. Smith, for the best dozen parsnips, | 2 00 |
| 490. To W. B. Bagley for the best bushel Irish potatoes, | 2 00 |
| 491. To L. J. Simonson, for the best bushel sweet potatoes, | 2 00 |

BRANCH VI.

Butter, Cheese, Bacon, Honey, &c.

CLASS 1ST.

BUTTER AND CHEESE.

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|--|-------|
| 492. To Mrs. E. Cummins, for the best specimen of fresh butter, not less than ten lbs., | 10 00 |
| 493. Mrs. J. C. Burton, for the second best specimen of fresh butter, not less than five pounds, | 5 00 |

CLASS 2ND.

Honey, Bee Hives, and Bacon Hams.

- | | |
|--|--------|
| 497. To J. R. Banks and A. S. Maddox, for the best specimen of honey, not less than ten pounds, | 5 00 |
| The honey to be taken without destroying the bees—the kind of hives used, and the arrangement of the bees to be stated by the exhibitor. | |
| 499. To Mrs. Samuel Weisiger, for the best ham, cured by exhibitor, | \$8 00 |
| 500. To Mrs. James Ayres, for the second best, | 4 00 |

BRANCH VII.

Household and Domestic Manufacture.

HOUSEHOLD MANUFACTURES.

CLASS 1ST.

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| 501. To Mrs. M. H. Turner, for the best quilt, | 5 00 |
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502. To Mrs. E. M. Wheary, for the second best quilt, 4 00
 503. To Mrs. Harris and Mrs. Jones, for the best counterpane, 5 00
 504. To Mrs. James Ivey, for the second best counterpane, 4 00
 505. To Mrs. Meredith and Miss V. Young, for the best pair home-made blankets, 5 00
 506. To Mrs. W. B. Westbrook, for the best home-made carpet, 5 00
 507. Mrs. M. A. Davis, for the best home-made hearth-rug, 3 00
 510. To Mrs. Norman Wake, N. C., for the best piece, not less than seven yards, home-made negro shirting, 3 00
 512. To Mrs. F. Niblett, for the best piece, not less than ten yards, heavy woollen jeans, to be woven by hand; 5 00
 513. To Mrs. H. Jarratt, for the second best piece, not less than ten yards, heavy woollen jeans, to be woven by hand, 3 00
 514. Mrs. J. W. Harris, N. C., for the best piece linsey, not less than seven yards, to be woven by hand, 5 00
 515. To Mrs. R. H. Allen, for the second best, 3 00

CLASS 2ND.

516. To Mrs. J. E. Venable, for the best fine long yarn hose, 3 00
 519. To Mr. James Ayres, for the best specimen of home-made wine, 5 00
 520. To Mrs. W. R. Johnson, for the best home-made bread, 5 00
 521. To Mrs. E. G. A. Poindexter, for the best home-made pound cake, 3 00
 522. To Mrs. James Ayres, for the best home-made sponge cake, 3 00
 523. To Mrs. James Ayres, for the best varieties home-made pickles, 3 00
 524. To Mrs. B. A. Hancock, for the best varieties home-made preserves, 3 00
 525. To Mrs. James Ayres, for the best varieties home-made fruit jelly, 3 00
 527. To Mrs. Henry Jarratt, for the best sample home-made soap, 5 00

LADIES' ORNAMENTAL AND FANCY WORK.

CLASS 3RD.

528. To Mrs. M. J. Lucas, for the best specimen of embroidery, 8 00
 529. To Miss M. T. Gordon, for the second best, 6 00
 530. To Mrs. W. T. Moseley, and Miss Pattie Branch, for the best specimen of worsted work, 8 00
 531. To Mrs. Deems, for the second best, 6 00
 532. To Miss Bettie D. August, for the best specimen of crotchet work, 8 00

533. To Mrs. Alex. Donnan and Miss Kate Couch, for the second best, 6 00
 534. To Mrs. Wilson and Mrs. Alley, for the best specimen of wax work, 8 00
 535. To Mrs. Cooper and Mrs. Morton, for the second best, 6 00
 536. To Mrs. Brownley, for the best specimen of shell work, 8 00
 538. To Miss P. A. Lacey, for the best specimen of ornamental leather work, 8 00
 539. To Miss E. J. Rowlett, for the second best, 6 00
 540. To Miss Annie Butler, for the best specimen of block work, 8 00
 542. To Mrs. Baxter and Mrs. Gilham, for the best specimen of knitting, 8 00
 543. To Mrs. A. Archer, and Miss M. Lemoine, for the second best, 6 00
 544. To Miss Isabella Gray, for the best specimen of netting, 8 00
 545. Mrs. P. Woolfolk, for the second best, 6 00

DOMESTIC MANUFACTURES.

CLASS 2ND.

549. To Sutherlin and Ferrill, for the best manufactured tobacco, Lenora Brand, CERTIFICATE OF MERIT.

BRANCH VIII.

Honorary Testimonials to each individual of Virginia who, previous to 1859, has discovered or introduced, or brought into use any principle process, or facility generally, or any improvement by which important value has been gained for the Agricultural interests of Virginia.

REPORT OF THE COMMITTEE.

The Committee on Honorary Testimonials in their present report would touch only on a single topic.

That the artificial grasses have had a principal agency in our improved systems of husbandry is known to all; and among these the place of precedence must undoubtedly be given to *clover*; not only for its intrinsic value as an article of food for animals, and the wonderful increase in its growth from the application of gypsum, but as a means, when turned under, of fertilizing the soil. A great drawback, however, to its more general and extensive use, has been the high price of its seed when obtained from abroad, or the tedious and comparatively inefficient methods heretofore employed, when the Farmer, and especially the Planter, would gather them from his own fields. The labour required for this purpose is also called for at an inconvenient season, and materially interferes with the other operations of the planter,—so much so, indeed, as generally to render this entire

class dependent on others for a supply. Both these causes combined have to this day, whether rightfully or not, deterred many small proprietors, or men of moderate means from its use, either entirely or only to a limited extent.

It is not very creditable to the mechanical ingenuity of our countrymen which has done so much to facilitate or abridge the labours of the husbandman in other departments, that it should here have so signally failed.

Your Committee are happy in expressing the belief that this reproach is at length about to be removed, and that this desideratum may henceforth be supplied. A machine for gathering clover seed, invented by Mr. M. S. Kahle, a citizen of Rockbridge county, and which, having been exhibited at other points in our State, was open to inspection on our own Fair Grounds on the present occasion, promises to meet this want.

The undersigned have not had an opportunity of witnessing its operation in the field; but testimonials of its successful working, from highly respectable and practical farmers in the Valley of Virginia, have been laid before us, and our own examination of the machine has tended to confirm their report. On inspection it appears to be well adapted to its purpose, simple in its construction, and, under a prudent use, but little liable to get out of order.

We have not at present the means of forming even an appropriate estimate of the sums which, during the present century, have been paid by the farmers of Virginia to those of other States for the clover seed used by them. But that the amount is great, there can be no doubt. This implement promises to enable them to gather from their own fields this essential element in an improved husbandry, and must inevitably reduce the cost to such as may not employ it directly for that purpose. Farther consequences will be, its more liberal and general, if not universal use, and when used liberally, the increase of its own crop to the exclusion of noxious weeds.

We therefore do not hesitate to invite the attention of our farmers generally to this novel implement as one which bids fair to be of the very highest utility. We presume not to say that it is insusceptible of farther improvement; but it is certainly a move in the right direction, and in advance of all its predecessors, so far as these are known to us. And should its performance fulfil but one half of what is claimed for it by its friends, the name of its inventor should be placed among those of the most distinguished benefactors of the agriculture of the State.

The present proprietors are Messrs. Huff & Kahle, of Salem, Roanoke county.

Respectfully submitted,

N. FRANS. CABELL,

T. JEFFERSON RANDOLPH.

DISCRETIONARY PREMIUMS.

559. To William B. Blanton, Farmville, for the best Tobacco Flattening Mill,	\$10 00.
560. To ———, Farmville, for the best Marl and Brick Elevator,	5 00
561. To Mrs. C. B. Turner, for the best dried corn,	1 00
562. Mrs. C. B. Turner, for the best paper flowers,	2 00
563. To Miss E. H. Lacy, for the best oil painting,	5 00
564. To Miss Flora Ragland, for the best hair work,	2 00
565. To M. Turpin for fine specimen oil painting,	2 00
566. To A. C. Harrison, for beautiful specimen of buggy saddle, stitched by John Aggers, 16 years old, after four months apprenticeship,	2 00
567. To Mrs. R. P. Bridgers, for best home-spun and home-made coat,	2 00
568. To E. A. Pillow, for a handsome plat of Fair Grounds,	2 00
569. To T. A. Sinclair, for the best buggy,	5 00
570. To Mrs. M. S. Bagley, for the best home-made starch,	2 00
571. To Burger & Boyle, for the best circular saw,	CERTIFICATE OF MERIT.
572. To Law & Sherman, for the best lot of files,	CERTIFICATE OF MERIT.
573. To Mrs. J. W. Hobbs, for the best specimen of lard,	2 00
574. To Miss M. A. Glover, for the best geraniums,	2 00
575. To William Dwryea, for the best corn starch and maizena, made at Glen-cove, L. I.,	CERTIFICATE OF MERIT.
576. To ——— Outen, for the best swingle-tree life-preserver,	5 00
577. To Tredwell & Pöll, for Shaers coulter harrow,	6 00
578. To Mrs. J. O. Bragg, for beautiful stand pearl work,	2 00
579. To Mrs. Sarah Burns, Petersburg, for fine spiced tomatoes,	2 00
580. To William B. Billings, for Union light and self-generating, safety gas lamp,	CERTIFICATE OF MERIT.
581. To Miss Jennie Rowlett, for superior home-made fruit cake,	2 00
582. To Mrs. James Ayres, for splendid damson cheese,	2 00
583. To Mrs. Thomas E. Haskins, Prince Edward, for superior blackberry wine,	2 00
584. To Miss Ida Ragland, for fine specimen of painting and hair work,	2 00
585. To Miss E. J. Rowlett, for fine specimen of pearl painting,	2 00

COMMENDATIONS.

Miss Rosa P. Crump, for handsome worked lady's morning wrapper.

R. J. White, of Portsmouth, for the Foster Block, a new building material compounded of sand and lime.

Mrs. Jesse W. Burton of Petersburg, for a handsome worked bed quilt.

Mrs. Nunnally, of Dinwiddie, for five handsome baskets.

Dr. A. Whitehead, for draining tile.

Messrs. Tappey & Lumsden, for improved hoghead screw.

Drs. J. M. Sheppard and J. F. Disosway, for one case each of dentistry.

Mr. W. M. Bush, for hogskin, tanned one inch thick.

Mr. J. F. Jaques, for fine Metallic Stencil brands.

Mrs. J. Hobbs, for fine loaf of potato bread.

Mrs. R. R. Haskins, Prince George, for fine specimen of home-made champagne wine.

Mr. C. B. Turner, for fruit trees.

Mrs. Ann Corling, for an overcast quilt.

Mrs. J. W. Hobbs, Petersburg, for home-made counterpane.

Mrs. Susan Pool, Petersburg, for home-made counterpanes.

Mrs. Cosby, Petersburg, for home-made counterpanes.

Mrs. Ivey, for domestic rag carpet.

Mrs. Tennon, for domestic hearth rug.

Mrs. Harris, of Wake county, N. C., for cotton serge.

Mrs. A. A. Rowlett, for large quantity of negro clothing.

Mrs. Norman, for cotton and flax towels.

Mrs. J. W. Harris, of Wake county, N. C., for Scuppernong wine, ten years old.

Mr. Allen P. Lee, for cotton cultivator.

Mrs. Powhatan B. Starke, for fine sponge cake.

A Yankee who had seen the statue of the "Greek Slave," and was asked if he was not in raptures with it, answered, "Well, to tell the truth, I don't care much about them stone gals."

The parent who would train up a child in the way he should go, must go in the way he should train up his child.

Dr. Franklin, speaking of education, says: "If a man empties his purse in his head, no one can take it away from him. An investment in knowledge always pays the best interest."

Be contented and thankful; a cheerful spirit makes labour light, sleep sweet, and all around cheerful.



The Southern Planter.

RICHMOND, VIRGINIA.

Friends!

Of the Southern Planter, and agriculture generally, help us to hold up our hands.

If ours is a good work, then aid us in its behalf. By contributions of science, experience, theory, and subscribers, help us to extend our circulation and means of usefulness.

If we deserve to succeed, and we think we do, as we try always to discharge our duties faithfully, then give in your continuance and support.

Every man on our list of subscribers can send us some new names, (or else his influence is feebly exerted,) if he will try. Will they not do so? Give us a liberal support, and we shall be enabled to reciprocate the favor, by making our journal more complete and full in details, wood cuts, and general interest.

On Economical Living, and the Encouragement of Home Industry.

While public attention is awake to the necessity of some well defined course of principle and action, which shall be so well understood and acted on by all parties of our mighty Confederation, as will best tend to the benefit of our sovereign States, and the preservation of their respective "rights," under the constitutional agreement, which should be alike binding upon them all, we deem it no trespassing upon the peculiar character of our paper, to say a word to the farmers of our own State on the course which we believe will best advance their interests, and our general prosperity, if it is adopted. While we put in a general disclaimer of any intention to increase the present excitement among our people, in regard to our "peculiar institution," or to fan the flames of angry prejudice existing between different parts of our Federal Union, we speak soberly and

calmly our own views of what we and our readers, *as farmers, owe to our State*, and of evils which may as well be remedied now, as at a later period. We must begin a reform sooner or later, and go back to the "good old times" for our notions of economy and simplicity of habit, which so well became the "Virginia gentleman," because they were so natural and unaffected.

'It will not be denied that our habits of living have, for many years, been growing more and more luxurions, and, in many cases, an ostentatious "style" has usurped the place of the plain, simple, cordial, generous hospitality of our forefathers. Are we any better or happier for it? Far from it. Our wants have been multiplied in a ratio far exceeding our means of gratifying them, "and if told, would muster many a score;" while our fortunes have decreased, in spite of greater facilities than those possessed by the last generation for making money.

Broadcloth has taken the place of home-spun; rosewood and mahogany have displaced the plain and substantial walnut and pine furniture of the olden time; silk has taken the shine off warm, comfortable home-spun yarn; and satin has rustled out of sight the unpretending and more modest chintz and calico of our grandmothers. This change in domestic matters and habits, which, while it has added no substantial additional charm to the persons of our ladies, has often impaired their minds, by fostering a blind obedience to the enervating laws of fashion and luxury, and added a grievous load of care to the burdens usually belonging to our gentlemen. Such a system of living procures for our women impaired health and usefulness; for our men, premature grey hairs, bankruptcy and misery.

Are these things so? We shall see, by comparing a list of the expenses of one of our young ladies of the present day for educational proficiency in the "ologies," dress and ornaments, with those of her mother, while we listen to the groans of many a "governor" of a family, at the "extravagance" of his household, displayed by a peep at his bills payable, and hearing the oft-repeated direction of "Young America" to his merchant, tailor, &c., "charge it to the old man."

Improper and false estimates of the respectability of labor, have increased and grown apace among all classes, until many a youth would

blush at being caught engaged in any manual labor or exertion differing from the course taught at the gymnasium, or by the "professor" of "boxing," or dancing; and the old adage, "He who by the plough would thrive, himself must either hold or drive," is too often imperfectly remembered by farmers, and unhinted to their sons. If we would prosper, and deserve to possess this fair land in which it has pleased a beneficent Providence to cast our lots, *we must help ourselves*—improve and develop the vast resources of our State, for the support and competent maintenance of all its sons. While we mind our own business, we are engaged in our own proper duty as good citizens; and we wrong no others when we cultivate and cherish that spirit of affectionate devotion to, and pride in the weal of, our glorious "Old Dominion," which is the birthright of each and all of her sons. For us all, we may glory in the fact, that on no part of the globe is this very feeling of unswerving loyalty to the home of our childhood so strongly marked, so often expressed, so seldom forgot, as in the inmost heart of every Virginian.

It is right and proper to cultivate this sentiment, to hush the voice of party spirit, which occasionally is raised among us, and to come up as one man to the work of developing the full industrial capacity of our Commonwealth; devoting our best energies of mind and body to its accomplishment; respecting the rights of others; knowing and maintaining our own; standing shoulder to shoulder, like brothers as we are, and push on the wheels of improvement of our own State car.

How shall we bring about this concert of action, to accomplish the desirable result of improving the condition of every man among us? By reducing our wants and expenses to the standard of comfort and utility. These may be preserved, and many a dollar saved, which is now spent in extravagant show, and the creation of envy among many who cannot afford the expense attending useless "style." By the adoption of simple and more industrious habits of life and cheaper costumes of dress, but above all, by *buying nothing outside of our own borders which can be procured at home, and determining, unalterably, to do without everything, not absolutely a necessary of life, which cannot be procured here.*

Look upon every sober, honest, *working man*, in every department of human industry, as *the* man of honor, and an ornament to his race;

thus will we promote the true dignity of labor; tighten the chains of friendship and confidence which should bind together the hearts of every people, and incite every man to the faithful performance of the duty which he owes to society and his country.

It is a great mistake to suppose that we are dependent upon any other State for the supply of our *real* wants; and if this assertion is in any sense too broad, *surely it is high time to remedy, and as speedily as it can be done, so great an evil*, and to remove the cause of this reproach from our skirts.

In Richmond and Fredericksburg alone, we have water-power enough to manufacture all the cotton grown in the South—all the shoes, hats, blankets, hardware, &c., that we want. We have large foundries, machine-shops and factories of every kind, which would be greatly benefited, and placed on permanent foundations, by Southern support and patronage.

Let them have it, and their prosperity will be the means of supplying us with establishments, which may at present be needed among us, for carrying on any other branch of industry, for the products of which we may be dependent now upon any other place.

We believe that the adoption of this course would help every citizen among us, and draw to our shores hosts of good artisans from other parts, whose advent would add to our general prosperity as a people, and do away the necessity for any such word as "waste-land" among us.

Let us begin, then, at once to adopt a more economical and plainer style of living; to retrench, as far as possible, our general expenses, and to *encourage, by all means in our power, our home manufactures*, and to let every Virginian see by our *acts*, as well as "resolutions," that in our sentiments of devotion to our State, our interests and common aims, we are one people—that each man is to his neighbor a help, friend and brother, and come weal or woe, we will share a common destiny.

To our Subscribers.

With the beginning of the present volume, The Southern Planter enters on its *twentieth year*. Upon the list are the names of some good friends, who have helped to support it from its infancy to the present time, and there are also the names of some who, *as it approaches the period of its majority, seem to think it can stand*

alone, and needs no further help. We have sent them the paper regularly, waited in a state of patient expectancy for the amount of their dues and contributions, and we have received neither.

Printer's ink, paper, patience and hope are alike consuming by the delay of these, and we sincerely hope that they "treat no other friend so ill."

We must, however, in the proper discharge of our duties to them, remind them that the beginning of the present year is an auspicious time to throw off all old encumbrances, in the way of bad habits—among the worst of which we are inclined to number that of failing to pay the printer—and, with the new year, to commence a regular system of dealing with printers, and all other classes of men, as they would like to be treated by them, if their relative positions were altered. Take our advice, then, for which we charge nothing, and we guarantee an increased amount of happiness and satisfaction to all parties concerned.

Information Wanted.

A subscriber begs for information, from any farmer whose experience qualifies him to give it, with regard to the following varieties of wheat, viz:

Boughton,

Bowers,

Early Purple Straw, White.

The difference in the prices paid by millers for White and Red Wheat, make it an important desideratum for us to procure a *White variety*, which will be ready for harvesting at a period sufficiently early to justify us in discarding the Red, now so extensively sown.

We must do this in self-defence, if we can secure, along with early maturity, other advantages equal to those claimed for the "Early Purple Straw, Red."

Droughts.

It will be seen by reference to the extract of Dr. Higgin's Report to the Maryland State Legislature, that the new and ingenious theory of the beneficial effects of drouth on soils, in bringing to the surface a fresh supply of inorganic constituents, is entirely original with him. We publish in our present number his views on the subject, and cannot refrain from expressing our convictions of the entire truth of his discovery.

This theory explains satisfactorily and rationally why it is that the well-known proverb of a "dry seeding time, preceding a good harvest," is true.

We commend the article to the attention of our readers.

Important Discovery.

Rev. Mr. Seeley, formerly of Springfield, Mass., now in Paris, communicates to the *Springfield Republican* the following interesting particulars of a promising discovery in France, for purposes of health, agriculture and surgery :

This discovery, made by Messrs. Corne and Demeaux, and thus far known as "Corne and Demeaux's Disinfecting Powder," or as the "French Disinfecting Powder," is as simple in its character as its results promise to be important. These gentlemen, in the course of some experiments, ascertained that a simple mixture of the ordinary plaster of Paris and coal tar (which is produced by the distillation of coal for gas) has very powerful anti-septic properties. The proportions of the ingredients are, one hundred parts of the plaster of Paris, to from one to three parts of the coal tar; and the mixture to be thoroughly made with a mortar and pestle, or in a hand-mill, or by such other method as the quantity desired and the means of the operator may dictate. The process cannot be very difficult, since the article fully prepared is sold in Paris for about ten cents per pound. It is used for disinfecting, or anti-septic purposes, some of which I will indicate. For preventing the disagreeable odor of sinks, &c., the effect is instantaneous, and it is so much cheaper, that chloride of lime must entirely fall into disuse. Two lbs. of the powder are sufficient to dissolve in twenty-two gallons of water; or a tablespoonful dissolved in $1\frac{3}{4}$ pints of water is sufficient per day to render inodorous the refuse of a household of four or five persons. A morsel, the size of a pin's head, will render limpid and fit for use a pint and a half of water, which is beginning to become putrescent. The value of such a discovery for those who travel in the East, and especially for ships at sea, cannot well be overstated.

But it also has an important relation to agriculture. One-half pound of the powder, dissolved in five or six gallons of water and sprinkled on the litter of a stable, will

deprive one cubic yard of manure of all odor, and prevent the loss of its fertilizing qualities. It was on this feature of the case that I thought you might easily institute experiments, and, if successful, you will not fail to see what a boon such a discovery must prove to all those farmers who comprehend the necessity of preserving in the best possible condition, and making the best possible use of all the fertilizing materials produced on the farm. It is probably no exaggeration to affirm that tens of thousands of dollars are evaporated every year from the exposed and smoking manure heaps around the barns and out-houses of the Massachusetts farmers; and if there be any virtue in this alleged discovery, coal tar enough to prevent all this waste is furnished by any gas establishment in the State. Every farmer is wont to use plaster, more or less, on his land. Let him apply a small portion of it in the form and manner here suggested, and its usefulness will be much more certain, in all cases, than at present.

But the relations of the discovery, which are regarded with most interest in France, just at present, are those which it sustains to surgery. It is claimed that applied as an ointment (made of the mixture) or in the simple form of a powder, to severe wounds and sores, to cancerous ulcers and to suppurating abscesses, it instantaneously deprives them of all odor, and brings the wound into such a state that the ordinary healing applications act successfully. Doctor Velpeau has reported to the Imperial Academy of Medicine, expressing high approbation of it as a dressing for wounds. Immediately after this report, the suggestion was made that it might be of great service to the wounded of the army in Italy. Accordingly it was tried at the hospitals at Milan by direction of Baron Larrey, physician-in-chief to the Emperor. I give a translation of a brief report on the subject, made to Marshal Vailant, major general of the army in Italy, by the surgeon, Dr. Cruveilhier, under whose eye the experiments were made :

"In conformity with your orders, and following the instructions left by Dr. Larrey, the powder of coal tar has been employed in the hospital of Milan on the wounded in whose wounds the gangrenous process, or hospital suppuration has commenced. The applications of the remedy, both in powder and as an ointment, were made on the first of August. The immediate results were

very favorable, and the disinfecting properties of the topic were verified in the cases of more than twenty patients who were treated by different physicians. Still further, it has proved that under the influence of this preparation and of good living, the wounds, being disinfected, are then modified, and in a few days the greater part of them present a greatly improved appearance. The application of the disinfectant is not omitted till the wounds, restored to a normal condition, are able to feel the action of the medicaments usually employed to promote the healing process. Twenty observations made in the hospitals in Milan, put these conclusions beyond all doubt."

From the foregoing may be learned what appears to be the general opinion among the French surgeons as to the effect of the mixture on wounds, though there has been some difference of opinion as to whether the powder is or is not strictly to be regarded as a disinfectant. That it is a powerful antiseptic, no one doubts, and time will discover whether or not it also possesses disinfecting properties.—*Country Gentleman.*

Lime and Salt Mixture.

Eleven years ago we first recommended the use of the Lime and Salt Mixture for the decomposition of muck, woods-earth, leaves, sea-weed, spent-tan, and other organic matters, which do not readily yield up their inorganic constituents for the use of crops; for whatever may be the proper doctrines of the day as to ammonia and its uses, the great value of organic matter is resident in the progressed inorganic constituents which they are capable of furnishing by decomposition. The Lime and Salt Mixture when properly prepared, is an admirable decomposing agent. Cotton seed, and a variety of other material, may be more readily decomposed by its use and with less loss, than by any other substances. It should be thus prepared: Dissolve one bushel of refuse salt in water, with this slake three bushels of caustic lime, hot from the kiln; we mean by this, lime which has not been slaked, either by water or by exposure to the atmosphere, and even when in this state, it is difficult to cause it to take up all the brine made by one bushel of salt. In such cases it should be left for one day after receiving all it is capable of absorbing of the pickle, when it may be turned over and a new quantity

added; thus in two or three applications it will all be received.

Salt is composed of chlorine and soda, and when added to lime, the following changes occur: the chlorine combines with the lime forming chloride of lime, the soda being thus set free, takes carbonic acid from the atmosphere and becomes carbonate of soda. Commencing then with lime and salt, we end with chloride of lime and carbonate of soda. This slaking should always be performed under a shed; as the new material is soluble in water, the outside of the heap will effloresce, becoming very fine and extremely white, and the mass should be turned very frequently, so that all parts may in turn come in contact with atmosphere. When the whole quantity has put on this peculiar appearance, and not before, it is ready for use. Four bushels of this mixture equally divided through a cord of any inert organic material, will decompose it to a powder in thirty days in summer, and in sixty days in winter. Swamp-muck, river-mud, woods-earth, spent tan, and various other materials when thus prepared, may be mixed through stable manure for composting with great advantage. In soils containing an excess of organic matter, such as the peaty soils, the Lime and Salt Mixture may be used direct as a manure. As a top-dressing for grass in sour lands, it has great value, while in all soils deficient of lime, chlorine or soda, it would be found to be beneficial.

The Lime and Salt Mixture should never be incorporated with purely putrescent manures, but rather applied separately; thus, if stable manures be deeply plowed under, the Lime and Salt Mixture may be used as a top-dressing before harrowing, and it will gradually find its way down, meeting the manure beneath the surface and there perfecting its decomposition, when so positioned, that all the results may be absorbed by the soil about it.

When oyster shell lime fresh from the kiln can be procured, it is always preferable to stone lime for agricultural purposes; more of it is progressed and capable of being assimilated by plants, while the excess quantity does not exercise a deleterious effect on the texture of soils.

Those who dispute our theory of the progression of primaries, would do well to tell us why we never find soil cracking by over-

liming when shell lime is used, as it does by the over use of stone lime.

Many weeds and insects are destroyed by a top-dressing of the Lime and Salt Mixture, and when thoroughly made may be placed around peach trees, preventing the peach worm or borer from entering the earth crown of the tree. We have known apple orchards restored to fruitfulness by a top-dressing of the Lime and Salt Mixture, and after under-draining, we have seen fine crops of corn raised by its use on muck swamps. It is well known to most farmers, that raw muck placed in the drill, is a good manure for potatoes and for nothing else; if, however, the Lime and Salt Mixture be used with the muck, potatoes are improved, and the land is permanently better for after crops. The Lime and Salt Mixture may also be freely used in very large quantities, as a top-dressing for Asparagus, even renovating old beds which have ceased to be profitable.

Our constant readers may wonder why we again repeat this Lime and Salt recipe, but the number of applicants for information on this subject is so great, that we find it necessary, to enable us to avoid answering their letters.—*Working Farmer*.

Cooking by Gas.

This is an improvement in the domestic economy of civilized life of the highest order; for nothing tends to create dirt and discomfort about the dwellings of the poor and middle classes more than the appliances now in use by them in cities for cooking and heating. Moreover, the combustion of coal or coke in large quantities, in crowded localities, is highly prejudicial to health and destructive of property. There is no coal in common use free from a considerable admixture of sulphur, which, when burned, forms sulphuric acid; the vapor of this being inhaled, causes many distressing pulmonary affections, and, when deposited upon clothing, it rots them away rapidly. But the combustion of well-purified gas is free from this objection, for its principal products are harmless watery vapor and carbonic acid; and, on the score of expense, we doubt if the wretched hard coal burnt by the poor in bad, smoking stoves, does not cost more in the course of a year than a neatly fitted up apparatus for cooking by gas would cost; for all the dirt from cinders,

ashes, and smoke, is done away with, the gas can be used as long as it is wanted, and be instantly stopped; it can be used in large or small quantities, to suit the amount of cooking or heating to be done; it requires no putting on of fuel or poking, and it can be lighted at a moment's notice.

In contrast with these facts, compare the process of preparing a working man's morning meal—the woman who prepares it must be up in winter at five or six, to lay a fire, in order that he may get to work by seven; and with the annoyance of smoke, ashes, and bad coals, she is worried to be ready; the room is filled with fine dust, and, probably, with smoke, which injures every article of furniture and dress with which it comes in contact. And, then the fire is not under control, it is too hot, or too cold, but seldom the exact heat, and consequently the cooking cannot be well done; meat is either burned or raw, and other articles are spoiled by the same want of a uniform temperature; and farther, cooking by an ordinary fire, is a slow process compared with cooking by gas. There is this advantage also in favor of gas, that all articles cooked by it are improved in quality. This was clearly proved to the committee of judges, and others, who examined the cooking apparatus exhibited at Palace Garden by Dr. Skinner; he cooked for them a large turkey in three quarters of an hour, some beef-steaks, pigeons, liver, lamb-chops, pork-steaks, &c., and nothing could exceed the excellence of the cooking, the pigeons and liver, in particular, were remarkable, these being usually so dry and devoid of juices, and being, in this case, most savory and full of gravy. Indeed, all the articles were improved vastly by the process; and the committee, without reserve, put them to "the proof," according to the adage.—*Practical Machinist*.

"Human happiness has no perfect security but freedom; freedom none but virtue; virtue none but knowledge; and neither freedom, nor virtue, nor knowledge, has any vigor, or immortal hope, except in the principles of the Christian faith and in the sanctions of the "Christian religion."

No man ought to look upon the advantages of life, such as riches, honor, power, and the like, as his property, but merely as a trust which God hath deposited with him, to be employed for the use of his brethren.



Six Little Feet on the Fender.

In my heart there liveth a picture,
Of a kitchen rude and old,
Where the firelight tripped o'er the rafters,
And reddened the roof's brown mould;
Gilding the steam from the kettle
That hummed on the foot-worn hearth,
Throughout all the livelong evening
Its measures of drowsy mirth.

Because of the three light shadows
That frescoed that rude old room—
Because of the voices echoed
Up mid the rafters' gloom—
Because of the feet on the fender,
Six restless, white little feet—
The thoughts of that dear old kitchen
Are to me so fresh and sweet.

When then the first dash on the window
Told of the coming rain,
Oh! where are the fair young faces
That crowded against the pane?
What bits of firelight stealing
Their dimpled cheeks between,
Went straggling out in the darkness
In shreds of silver sheen.

Two of the feet grew weary,
One dreary, dismal day,
And we tied them with snow-white ribbons,
Leaving him there by the way.
There was fresh clay on the fender,
That weary wintry night,
For the four little feet had tracked it
From his grave on the gray hill's height.

Oh why, on this darksome evening,
This evening of rain and sleet,
Rest my feet all alone on the hearthstone?
Oh! where are those other feet?
Are they treading the pathway of virtue
That will bring us together above?
Or have they made steps that will dampen
A sister's tireless love?

The Contented Man.

FROM THE GERMAN OF JOHANN MARTIN MILLER.

Why need I strive for wealth?
It is enough for me
That Heaven hath sent me strength and health,
A spirit glad and free;
Grateful these blessings to receive,
I sing my hymn at morn and eve.

On some, what floods of riches flow!
House, herds, and gold have they;
Yet life's best joys they never know,
But fret their hours away.
The more they have, they seek increase;
Complaints and cravings never cease.

A vale of tears this world they call,
To me it seems so fair;
It countless pleasures bath for all,
And none denied a share,
The little birds, on new-fledged wing,
And insects revel in the spring.

For love of us, hills, woods and plains,
In beauteous hues are clad;
And birds sing far and near sweet strains,
Caught up by echos glad.
"Rise," sings the lark. "your tasks to ply;"
The nightingale sings "lullaby."

And when the golden sun goes forth,
And all like gold appears,
When bloom o'erspreads the glowing earth,
And fields have ripening ears,
I think these glories that I see
My kind Creator made for me.

Then loud I thank the Lord above,
And say, in joyful mood,
His love, indeed, is Father's love,
He wills to all men good.
Then let me ever grateful live,
Enjoying all He deigns to give.

The Voyage of Life.

Sailing down the stream of time—
Looking back to view the shore,
Where my early years began,
To trace them never more!

Often by the way I've lost,
Little barques that sailed with me,
Some were often tempest-tossed,
Others sank into the sea.

Eyes that beamed on me so bright
When I started on life's main;
Closed, while yet 'twas morning light,
Closed, and opened ne'er again.

Hopes, that sparkled in the sun,
Diamond-like on every wave,
Sank when burst upon—
Sank, and only left a—grave!

Still my little barque is sailing,
Down the rapid stream of time;
Sails are torn, and timbers failing—
Making for another clime.

Hangs a rainbow over head,
'Mid the clouds a golden bar;
And on ocean's darksome bed,
Brightly glows the evening star.

And an angel, gathering up
Hopes long buried in the sea,
When I reach the heavenly port,
Will restore them all to me.